

Clouds, Crowds and Customers: Doing Business as Unusual

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The Challenges of Business as ‘Unusual’

Future business is being shaped by a unique set of pressures. In addition to a challenging economy and shifting political policy, we have interesting changes in customer behaviours and demographics, crowd behaviours enabled by social technologies and new networked technologies and infrastructure: Clouds, Crowds and Customers.

We have entered an age of ‘business as unusual’. This is an age where business environments are less predictable, controllable and certain; where strategies become more organic, less linear, chaotic and emergent; where customer behaviour is social, connected and viral. This is both an exciting and a scary time because the fundamentals of business as usual are being challenged. Businesses are generally built to last rather than to change. The result is that we tend to use new technologies to reinforce old ways of doing things.

According to a survey conducted with 131 senior business and IT people as part of BT’s ‘Beyond the Cloud’ events, the priorities for organisations are:

- 42% wanted more efficient business processes.
- 45% wanted to deliver better customer service.
- 13% wanted to make their people more productive.

The emphasis placed on customer service in this equation is reassuring since there is always a temptation in hard times to look to organisational efficiencies at the expense of customers. Customer retention is more cost-effective than recruitment, so retention is all. The interesting aspect is that individual productivity is not a current focus – with leaner, meaner organisations already stretching their people to the maximum and processes often preventing them from being more productive.

However, with everyone being challenged to do more for less, now may well be the time to rethink business models that have often been in existence for a hundred years or more.

Things such as:

- What exactly are offices for now, given that many employees can work anywhere?
- How will the younger generation (the millennials) influence the future ways of working?
- Will internally run IT infrastructures go the same way as the electricity generation department?
- How does a connected, informed and opinionated customer challenge the way that front line services are delivered?

This paper will tackle all these questions and more.

Much of the discussion in this paper was inspired by the panellists and delegates who participated in the series of ‘Beyond the Cloud’ events that BT hosted alongside Cisco and Computer Weekly during June and July 2010.



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All Change, Please: The Rise of the Connected, Multichannel Customer

Technology alone does not create change – people using technologies in new and different ways do. The internet has changed the way that customers work and play. In fact, customers have changed more than the organisations that both serve and employ them.

2.1. There's No Place to Hide Online

On the internet there are few places organisations can hide. Customers can compare prices and products at the click of a button. They can critique, scrutinise and post content that can pass between users across the globe in minutes. The internet has given customers what academics are calling 'radical transparency' along with infinite choice.

Choice, in itself, is good but too much choice tends to cause our brains to freeze (unfortunately the development of our brain does not run parallel to that of the microchip). This gives rise to a trend of advice-seeking amongst customers as they try and reduce choices to the 'right one for me'.

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According to Ofcom [1], smart phones account for just over a quarter of UK mobile phones (26%), so they have reached a critical tipping point. Nearly a quarter of adults (23%) and nearly half of 15-24s (45%) access online content on these phones [1]. Some of the applications that exploit the functionality of the smart phone range from barcode scanners (using the phone's camera), which enable people to compare prices between the physical and virtual world, to applications that can find services in your location and customer recommendations about those services. These services start to affect the ways that customers make decisions.

There are even applications like Google Latitude and FourSquare that combine the social web with geographical awareness and allow you to see if friends or colleagues are nearby (an opt-in service).

2.2. Population Extremes: The Challenge of Ageing and Younger Demographics

The fastest growing segment of the population in the UK at the moment are 100-year-olds (by 2033 there are estimated to be 64,200 people who have reached their centenary, according to the Office of National Statistics [2]). This has challenges, particularly for the public sector in terms of serving an increasingly elderly population.

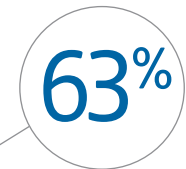
Although it is great that we are living longer, we are still suffering the consequences of ageing, including declining eyesight, hearing, dexterity and mental health. Although traditionally the over-70s are the most resistant to adopting new technologies, accessibility can be more of an issue.

Many devices (such as the iPad) have no tangible buttons or controls and give no tactile feedback. This makes them difficult for vision- or dexterity-impaired people to use effectively, so accessibility considerations need to be built into design.

For employers, however, it is the younger population who are the future. 16 to 24-year-olds are embracing new technologies in creative ways – communicating via multiple channels simultaneously, creating their own content and multitasking to the extreme. Ofcom [1] found that people spend an average of 7 hours a day consuming different media, but they squeeze in 8 hours and 40 minutes' worth of content through multitasking. E-mail and voice channels are no longer their primary choice for communication for each other, their friends and colleagues and organisations. Phone calls represent less than 25% of mobile phone use for 16 to 25-year-olds (compared to 57% for the over 55s). 63% of usage amongst the millennials group involves text messaging and social networking [1].

Amongst younger people (16 to 34-year-olds), social networking has become more popular as a method of communication than e-mail (accounting for around 23% of all time spent on the internet [1]). Social media can provide a faster and more personal way of communicating with customers and resolving problems.

Many organisations are realising the potential that millennials can provide them. Cisco has created mentoring programmes where young graduates are teaching senior managers about new technologies. Other organisations just don't quite get it – with the worst offenders recruiting over social networks such as Facebook and then, as soon as the recruit steps through the corporate doorstep, banning social media. They are wasting the very talents of the highly networked individuals that they have just recruited.



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2.3. The Age of Self Help, Paranoia and Advice Seeking

Networked customers are often very happy to do a lot of things using self service, as long as it saves them time, energy and, preferably, money. However, there is an assumption that self service will mean that customers will no longer use expensive channels like call centres or face-to-face. This assumption is largely wrong. What happens is that the simple and transactional stuff goes to self service, leaving the human channels to deal with hugely emotive and complex issues. The common customer gripe with these channels is now that they get lovely front line people who can't do anything for them because they either lack the skills or the empowerment to deal with this tide of complexity.

To solve complex customer problems, organisations need to 'speed date' customers with the appropriate expert, wherever they may be – this is what we call 'networked expertise' [3].

Networked expertise is around centralising core technology platforms and applications, whilst decentralising the expertise. The business result of this is that organisations can be more agile and flexible when facing unexpected call peaks or events.

The decentralised model also means that the contact centre no longer has to fire fight during peak call times during the week. If calls can be diverted to available experts across the organisation, loads can be balanced across the whole enterprise. Similarly, this also means that the available expert resources can also be scaled down during quieter periods.

This also introduces resilience and redundancy into the network of expertise. A centralised contact centre function is a single point of failure that is often vulnerable to things like viral pandemics, travel chaos and bizarre weather.

Of course, the ultimate in decentralisation is home working - or 'homeshoring', as it is called in the contact centre space [4]. This provides organisations with the opportunities to recruit and retain different demographics of expertise – including returning mums, over-55s and people with disabilities who do not necessarily want to work in a centralised office on a traditional nine-to-five basis. The productivity advantages of this model can be huge, with BT's own homeshored advisors being more effective, more flexible in terms of attendance patterns (particularly being able to schedule antisocial hours, split shifts and also "microshifts" of as little as 15 minutes to respond to call spikes), more productive (with a 20+% uplift in both attendance and performance from home based advisors compared with contact centre based advisors) and more satisfied with their work.

Changes in technology can be the key enabler to this level of flexibility. There is no longer any reason to centralise resources around a physical switch any more. Technologies such as unified communications and SIP are causing a major shift in contact centre operations [5]. Expert advisors need to be able to call upon knowledge within the organisation to get the right expertise, right there with the customer and through the right media in order to achieve their right first time objective.

The shift to complexity caused by increased self service capabilities and the cost of failure associated with not resolving customer calls means that the investment in such a model is offset by the efficiencies and cost savings gained.

However, this 'networked expert' model challenges business as usual:

1. Networked experts can be anywhere. This model is likely to be a mixture of front office, contact centre, back office, mobile and home based workers – which also implies that applications need to be available through desktop, mobile and conferencing channels. They may work anywhere (and, potentially, for anyone) but they will have customer queries routed to them intelligently, based on their expertise, appropriateness and availability. They can act as a conduit to other networked experts, depending on the customer requirement. These experts will manage their own work and queues through enterprise wide workflow technologies.
2. Many organisations do not know who (or where) their experts are – although skills-based routing is common in the contact centre space, this model implies that expertise needs to be tracked across the whole organisation. The contact centre needs the ability to access lists of expertise in order to assess who the expert is and whether they are available and appropriate to deal with the customer enquiry.

Experts are, by definition, an expensive and scarce resource. It is true that companies cannot afford to turn all their knowledge workers into contact centre employees, since they are often occupied with small matters such their day job! So that expert productivity isn't compromised or, even worse, experts learn to look unavailable in order to not receive customer contacts that disturb them, it is critical to develop a clear, coherent process for letting contact centre advisors access and engage expertise.

This could involve creating rotas of experts in an 'expert pool' who are effectively 'on call' to solve customer problems, anonymising experts so that the same people don't always get pulled in and even building in additional routing criteria relating to media preference, language skills, geography, estimated time to availability (if everyone else is busy) etc.

3. You need to have skills-based routing on 'acid' – this is analogous to speed dating in that the customer problem needs to be matched with the appropriate expert who can deal with it in a timely manner. Skills-based routing is a simple variation on presence information in that

automatic call distribution looks to route calls to the most appropriate, available advisor. In the networked expert model, however, expert queues can go across the whole enterprise so that customers can be steered to the next available expert in that 'expertise queue'. This may be done on an automatic distribution basis or manually (although this may lead to certain experts becoming overloaded if advisors always transfer to the person that they know and trust to handle the issue). Because availability of experts is visible, it avoids the potential dangers of getting into voicemail hell.

4. Since, at an extreme, everyone could potentially be talking to customers, there is a degree of anarchy that needs to be carefully managed – not least to fulfil regulatory requirements. As a result, great CRM and workflow needs to be there in order to know and track who has spoken to whom and what happened as a result. 'Smart tags' can be used to indicate the presence and availability of individuals listed as having contributed to the end-to-end chain of interaction. This allows anyone to see both the identity and availability of all experts involved in the end-to-end workflow – useful if you are trying to find out who was the last person to deal with an issue.

Experience has shown that this way of working can increase first contact resolution rates to around 70-75%. This reduction in cost of failure demand is why analysts such as Gartner [6] have predicted that 80% of businesses doing this will obtain significant competitive and cost differentiation because of it.

Combine demographics, devices and difficult questions coming and organisations are having to think about how they can move more effectively and efficiently in customer time rather than corporate time (which is often far slower).



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From 'Push to 'Pull': Rethinking Business Strategy.

Many of today's business models have been around since the 1900s. Capitalism has a history during which there have been times of relative stability and times of great upheaval. The previous period of fundamental change in commercial models was the end of the 19th/beginning of the 20th century as the industrial revolution kicked in and mass consumerism became a reality.

As a case in point, early in the 20th century, cars were made by the rich for the rich. However, others wanted cars too and it was Henry Ford that is credited for the invention of mass production and its unique economics as a way to respond to this new market. That was the technological breakthrough that made it possible to meet the challenges of mass consumption.

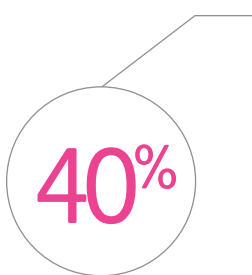
Today, we have the new digital technologies that have the potential to turn mass consumption into individualised consumption. However, in business we've largely used these technologies in the old ways. We've used them to automate processes, for labour substitution, to drive down transactional costs and increase profits and, as a result, we've turned more and more things into commodities.

This current period of economic turmoil may be a precursor to another seismic change in business practices. There is an appetite in both public and private sectors to do things in different ways, enabled by new technologies, in order to create new economies and practices. This was reinforced by a poll conducted as part of the 'Beyond the Cloud'. 40% of people believed that the current key focus of their IT department was innovation, with 37% looking at cost transformation and efficiency and only 23% concentrating on maintaining and delivering core services such as upgrades and repairs.

Agility in the face of the unpredictable is a key aspect of business as unusual. The likes of Seeley-Brown and Hagel [7] note that previous business models ('Push' models) were built on the ability to forecast and plan precisely (as in the factory production line model). This relies on stable markets, minimal variation and prediction based upon past performance.

New models ('pull' models – like Seddon's systems thinking approach [8]) tend to more accurately reflect the chaos of the real world. Human behaviour introduces uncertainty and complexity into the equation. Variability becomes the norm. The old push models of measuring and managing, command and control start to break down as systems become less predictable. Pull models work around understanding and responding effectively to customer demand.

Competitive advantage is often about how fast you move, how knowledge flows (rather than what knowledge you own), networks of relationships and human capital rather than physical assets. The ability for 'garage' startups to compete with big, established organisations with little more than rich human capital and a pay as you go infrastructure is becoming a reality – they



40%
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can achieve scale without mass (thus violating the laws of physics as well as old commercial ideals). As Hagel [7] observes: “how do we get better, faster and by pulling together?” The “bang for your buck” of these things is notoriously hard to quantify using traditional transactional economic models.

Key to this is leveraging the combined brain power and passion of the employees within an organisation and their customers outside it (i.e. human capital). Hierarchies may have disappeared off formal organisational charts but they are still very much in evidence when it comes to centralised decision making and (often unwritten) power structures. This gives rise to the traditional Taylorist carrot and stick model which was also a product of the industrialisation process in the late 19th century.

Taylor, who came from a well-to-do Philadelphia family, was a foreman in a Pittsburgh steel mill. He devised a means of detailing a division of labour in time-and-motion studies and a wage system based on performance. This increased business profitability. It also became the “only way to go” in managing and motivating people. However, Taylor’s concept of motivation started and finished with monetary incentives and he believed that the largely uneducated workforce in his mills were inherently lazy. Taylor’s attitudes towards workers were laden with negative bias and he believed that “in the majority of cases, man deliberately plans to do as little as he safely can”.

Given that much of the work in 21st century organisations is knowledge work rather than production line (and that includes so-called “transaction processing” activities such as the contact centre), the Taylorist approach to measurement and management becomes increasingly difficult to define in tangible unitary terms. It can also serve to demotivate what might have otherwise been a passionate and engaged workforce (a recent YouGov survey [9] showed that UK job satisfaction had plummeted to an all time low). It is unsurprising that we tend to want to get out of organisations where we have no voice and control.

Control and motivation are, of course, inherently linked. Classic psychology states that a job with high demand and low control generally results in stress. By giving employees more voice and control, higher engagement and satisfaction can occur. By decentralising decision making processes, people can make decisions that matter to them in a timely and appropriate manner. Management should be about co-ordination of these processes rather than the control of them. Success often depends on how well loose networks of people come together to work and collaborate.

In addition, the power of the customer should not be underestimated as part of this model. Zuboff and Maxmin [10] back in 2004 looked at a model of business where people would come together to help each other and support mutually beneficial goals. There are a number of examples of this emerging. UK Government’s notion of the ‘The Big Society’ has been described as “an organisation being set up by frustrated citizens for frustrated citizens”. The mobile phone company Giff Gaff uses customers to both promote and support the product in return for low mobile tariffs. We also have community social networks and forums where people collaborate without tangible economic rewards (we call this ‘psychic income’) to solve each other’s problems. These sites are often our first port of call because they are available on search engines and are often more preferable (and effective) than sitting in a queue for a contact centre advisor.

So, there are signs that a dramatic shift is starting in the wonderful world of business, fuelled by this era of uncertainty and unpredictability. This is facilitated by a change in the way that technology is harnessed to meet these new market demands. Collaboration, co-ordination and networking technologies are all at the core of this revolution.

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Crowds: Creating New Ways to Network

4.1. Social Networking: Why Bother?

Humans have always been social animals – talking, discussing and innovating are all part and parcel of human existence. The telephone was only the start in terms of technologies to support these behaviours and social networking is simply a new tool to support the natural ways that people collaborate and network. However, it challenges traditional organisation models because it is, by nature, both very difficult to control and also transcends the traditional hierarchies and silos of organisational design. The power here is with the people – and, given human capital is vitally important to future organisational success, this is the right place for it to be.

Forrester [11] has found that there is a direct relationship between successful people and their ability to build and maintain strong networks. People with strong networks are able to get things done faster because they can rapidly involve, influence and align the right people who can help them achieve their goals. These people are often the hub points of any community – the person who always has the answer or knows someone who does.



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As a result, companies that exploit social networking tools tend to benefit from:

- **Better collaboration translating into innovation.** Innovation often comes about by diverse people collaborating to create something new. Companies often stand or fall by their ability to innovate, especially in tough times. IBM invested in ‘InnovationJam’ connecting more than 150,000 people in 104 countries – including IBM employees, business partners, and students. This resulted in IBM investing \$100 million over two years to develop the top 10 ideas. A similar initiative was also conducted by Dell (IdeaStorm).
- **Stronger personal ties increase employee engagement and retention.** Studies have shown that companies with a high level of community and collaboration tend to have less employee churn and higher engagement.
- **Selling depends on relationships.** The best salespeople spend their career building a strong network of business contacts. The strength of these relationships directly impacts the success of the salesperson and, ultimately, the success of the company.

Yankee Group [12] points out that the growth in social networking has evolved alongside rapidly changing work patterns. In the past, most employees spent most of their time in a fixed office. Meetings and serendipitous conversations around the water cooler were the norm for collaboration and knowledge sharing alongside the traditional tools of e-mail, instant messaging and telephones.

However, given the advent of near ubiquitous connectivity, employees are frequently strewn over multiple time zones, offices and home offices and anything in-between. Traditional collaboration tools tend to get overtaxed and overloaded by this way of working because they were never intended to facilitate group collaboration. This is especially problematic when critical knowledge is lost or stranded with a single individual. This is a symptom of overusing what Yankee Group [12] calls “the black hole of collaboration”: namely e-mail.

Millennials, especially, have different technology expectations and build personal and professional networks differently from older generations. For companies to recruit, retain and get the maximum out of these younger employees, they need to provide them with the tools that they are familiar with (or have similar functionality).

Social software, however, combines communication with content. The ability to discuss ideas within a group wiki via comments or respond to a colleague’s blog post, creates new ideas and enhances existing knowledge.

Discussions formed around information are also stored for future use – becoming arguably the most valuable content of all. Social software tools foster a richer understanding of content for active participants. They also enable original content creators to re-evaluate their ideas based on the comments and contributions of their colleagues.

It seems that social networking is here to stay and may well become as much part of the office suite of tools as e-mail and the telephone in terms of combining communication with content and knowledge with people. It has the advantage that knowledge is not condemned to collect dust on a hard drive or e-mail system but potentially becomes something that is constantly changing and evolving in a public space – generating new ideas and creating online reputations as it goes.

4.2. The Elephant in the Room: What’s the Return on Investment?

However, there is “the elephant in the room for social media”. Companies won’t invest in it unless there are some tangible benefits over and above its seeming to be a good idea. After interviewing a number of companies who are doing social networking, the overwhelming opinion was “the ‘I’ (investment) is relatively small, it seems to be worth doing and we’ll justify the return later” [social media manager in a major multinational corporate].

However, various blog discussions about this topic tend to acknowledge that social networking will only produce return on investment if companies start to focus in on specific and real pain points and problems for an organisation that can be addressed by tools such as social networking services, blogs or wikis.

Social networks are different from traditional IT solutions in that they don’t just solve one problem. One tool can address many issues including communication, co-ordination, innovation and collaboration. The value of social media is in their relationships and their context – both of these are organic and emergent. One interviewee [a social media manager in a major multinational corporate] commented that he was not aware of a business case being generated for the provision of phones and e-mail so why should social networking be treated differently? However, social networking seems to generate a certain amount of cynicism at the highest levels of organisations with a typical comment [from the CTO of a SME] being “I don’t want my employees messing around with Facebook all day – I want them doing some real work!”

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The biggest question to be answered here is, given industry's obsession with quantification, what actually constitutes "real work" in a white collar context? Less facetiously, most managers tend to look to increasing productivity and knowledge sharing as part of their social networking business case. These measures include:

- The ability to better utilise the expertise of people within the organisation (networked expertise).
- The value that can be leveraged from sharing contacts and "useful stuff".
- Delivery of the right information to the right people at the right time, rather than focusing on storing data.
- Faster innovation and thought leadership.
- More effective collaboration.
- Increased agility.
- Reuse of knowledge.
- The ability to harness both explicit (known) knowledge with social connectivity (tacit knowledge).
- Increasing efficiency by reducing e-mail volumes (estimated at a 25-30% reduction with the use of wikis due to the fact that there aren't multiple e-mails (potentially accompanied by multiple attachments) being fired off).

However, quantifying the benefits of establishing serendipitous connections, where people network together in order to do things differently and potentially create new products, connections and business partners, is almost impossible to do. As Steve Masters, BT's head of Global Convergence and Propositions, says from experience: "collaboration business cases are hard to prove in terms of return on investment".

Key Performance Indicators (KPIs) can be put in to measure these things (such as % of revenue from new products, % of projects initiated by ideas from outside the organisation, % of products sold direct vs referrals). However, making the ROI case for initial investment is difficult because these tools do not guarantee success or new innovative ideas; rather they increase the chances of its happening.

Interestingly, one of the advantages that BT gained when it opened up social media applications was one that was less anticipated. According to Masters, "the tangible benefit for us (BT) in terms of opening up Facebook is that the volume of junk e-mail (for example funny video clips of someone falling out of a tree) has pretty much disappeared. Previously all that junk mail would have had to go into digital storage. The costs were immense, so the savings can be significant."

So, figures around cost saving and efficiency may well be what gets social networking tools a foot in the door but it will be their usage and the resulting success stories around how they promote innovation and revenue growth that will ultimately silence the ROI requirement. The value of social media is unpredictable and emergent which makes it impossible to spell out up front.

The problem is that businesses are focusing on the value an online social networking community can provide to themselves, not the value it gives employees. In order to be successful, social networks need to benefit users first in order for them to benefit the business.

In terms of return on investment, it is difficult to quantify the benefits above and beyond that of driving efficiencies because many of the benefits are around serendipity, expertise and reuse which



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are less tangible to quantify. However, this is not a reason alone to discount social networking since it would probably be just as difficult to articulate the tangible business benefits allied to more conventional office tools such as e-mail and telephony!

4.3. From Monolithic to Co-Created

The biggest challenges that social tools bring are to traditional business practices. Breaking down hierarchies and silos, relinquishing managerial control, building trust and establishing a viable governance strategy that treads a fine line between control and chaos are all far from business as usual in many organisations.

Enterprise IT is often about enforcing control and conformity. The rationale is that the most secure, reliable and predictable environment is one that is well understood, well documented, and well managed. However, with social networking tools, the world is not co-operating. People at work exploring outside the locked down enterprise computing environment are finding value in the wild west of social media – applications such as Facebook, LinkedIn, YouTube and Twitter are often being widely used without official endorsement (which then often results in those sites getting blocked by the IT department). John Hagel commented on his blog that there is often “a big cultural difference between the social media people and the IT department”.

Blocking these sites doesn't mean that people will stop using social networking for work matters if they feel that they are gaining significant business value from them. Since the boundaries between work and home are blurring, the chances are that they will simply start to use their personal PCs or smart phones for work related things. Koplowitz and Driver [13] note that “no matter what size technology barriers you put in front of people, there will always be workarounds. Especially when people fervently believe in what they're doing, like being effective at work.”

Consideration should be given to which social networking technologies suit the multifaceted nature of business today. However, beyond the technologies, organisations also need to encourage people to actively participate (a social network of one is not a valuable one). This is more about culture change and trust. Richard Dennison from BT emphasises the role that organisations have in the success or failure of enterprise social networking: “the organisation has the hardest and most critical role of all – they have a create an atmosphere and a space in which people feel free to participate, feel free to express themselves without recrimination and trust that their contributions are being taken in the way that they mean them to be taken”.



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Cloud: Is it all just Water Vapour?

5.1. Lifting the Fog: What Exactly is this Cloud Thing Anyway?

Changing IT infrastructures both change customer behaviours and enable different ways of working (if you allow them to). 'Cloud computing' appears to be at the forefront of this change. There is a sky full of hype going on about cloud in the IT and Telecoms community at the moment. Our recent research with ICM showed that 28% of people think that cloud is the most important trend in IT strategy, over and above reducing costs (16%) and Virtualisation (13%). Awareness of cloud is generally high, with 58% of government clients interviewed saying that they had heard of cloud.

Although generally regarded as 'the future of IT' (by 44% of respondents in a 'Beyond the Cloud' poll), 56% of people were struggling to articulate the benefits down to a business case level.

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Part of the issue is the fogginess that surrounds the actual definition of what exactly a cloud service is. Ask a number of experts and you will probably get a different definition each time. As Bryan Glick, editor of Computer Weekly Magazine, related at one of the 'Beyond the Cloud' discussions: "the definition depends on who you talk to. John Suffolk, who leads the G-Cloud strategy for the public sector, did a market testing exercise to find out what the cloud was and found 22 different definitions, none of which fitted his requirements, so he had to identify a 23rd".

The broadest definition seems to be that 'cloud' is a banner term that can be applied to any application that enables users to access services over the internet, from additional processing power to data centres. The nearest analogy is outsourcing but, as Glick observes "it takes it to another degree. So, instead of someone else running your IT systems, you are using someone else's IT systems, on a shared platform."

However, ask a non-technologist about cloud and generally you are greeted by either a singular disinterest or a resigned sigh that it is nothing new. For C-level business people, Cloud is strictly seen as "something for the techies", a method of delivery with nothing tangible to show in terms of business strategy and solutions. To quote one public sector customer, "the words have been used too many times and there is no result associated with it. There's nothing tangible. The concept is fine but there's nothing there."

From the guys on the ground there is very little concept of how this shift in technology infrastructure will help them enhance the way that they run their business. While the potential shown by every new IT technology is tremendous, factors like security, cost and adaptability ultimately decide success or failure.

To be honest, none of this is particularly surprising. Research by Pew [14] showed that 69% of internet users existed in “the cloud”, through browser based services (e.g. Facebook, Gmail, Twitter, Flickr, YouTube etc), but very few people were aware that those applications were cloud services. They simply focused on the functionality that those applications gave them – whether they be for social networking, phone/video conferencing, webmail, photo sharing, watching online TV and personal file backup. So, in the customer space, the cloud revolution has already happened. The business world is, once again, playing catch-up. As customers, we use these applications more than we understand them. We seem very comfortable with the functionality that cloud gives us without needing to know that we are in the cloud. We regard it as easy and convenient, we like the fact that we can get access to these services from wherever we are and on whatever device we happen to have.

However, for businesses the move to this model is a seismic shift from the conventional client-server model. Stephen Nunn from Accenture, another panellist at the ‘Beyond the Cloud’ events, thinks that cloud can underpin vital strategies for business survival: “cloud drives three major advantages from a business perspective. These are speed to market, driving agility (through the ability to flex resources up/down) and the ability to vary cost models”.

Cloud potentially takes a lot of core functionality out of organisational control. This has happened before in other functions that were regarded as core to business. The parallel that is often cited as an example is the fact that, 25 years ago, many organisations had a ‘head of electricity generation’ and now that function has now been entirely entrusted to the electricity boards. Could the IT function go the same way? The interesting dilemma is that, if IT are the only people who are interested in ‘cloud’, they are also likely to be the most resistant, since they potentially lose control of their IT network and their jobs are potentially under threat.

As with any seismic change, human psychology also plays a large role in acceptance – and this particular one is the psychology of possession, which I have termed the “mine” dilemma. If we put this in domestic terms, despite having access to pretty much any movie/song online, we probably still have extensive collections of CDs and DVDs residing on our shelves. Why? Because they are “mine” – I can see them, touch them and show them off to other people. Couching it in business terms, we rarely open up our office spaces to other organisations to share for reasons of control, security and identity. As Ray Stanton, head of BT’s security capability, pointed out at one the ‘Beyond the Cloud’ events: “You are looking at taking away something people can see and touch. It’s around the psychology of trust.”

The Rolling Stones were clearly before their time when they said: “Get off my cloud!”, since the same psychology permeates thinking about cloud services. One local government organisation told us that they were happy to go with services in the cloud as long as that cloud was located within the local area authority boundaries! This, of course, then serves to undermine many of the key advantages that are commonly cited for moving to cloud services.

Knowing who has access to their data, controlling it and touching it is important to organisations. As Stanton observed: “Security is the enabler for using the cloud. At its core, it’s a contract that you are outsourcing. You need to determine your requirements, regulatory needs, security levels, your risk appetite and what you are prepared to accept as an organisation”. Click added to that: “Security often comes at the top, or near the top, of CIO’s worries about Cloud – but the issue is about making sure that people understand the issues that need to be tackled. The technology is there to deal with the security issues but a lot of it does come down to understanding the contract and due diligence.”



Get off
my cloud!”

Organisations have conceded that there are some services – like e-mail, data storage and conferencing – that are regarded as headaches for the IT department and that they would more readily relinquish into the cloud, as long as they know where that data is and who they go to when things go down.

They are not, however, particularly interested in how these services are delivered – that’s a problem for technologists and technology companies.

5.2. Tackling Business as Unusual

It seems to be the inherent fluffiness of the cloud that makes people reticent to consider it. What business problems does it actually address? Well, here are three recent business challenges that would ideally lend themselves to cloud-like applications.

£1bn

The UK economy lost per snow day in January 2010 as almost 6.4m people failed to make it into the office.

Challenge number 1:

‘Snow Problem’: Increasingly Unpredictable Environmental Events

The UK economy lost £1bn per snow day in January 2010 as almost 6.4m people (nearly 20% of the UK population) failed to make it into the office [15]. Couple this up with volcanic ash clouds, flu pandemics, transport strikes and floods and UK businesses can be vulnerable to sudden, unexpected interruptions to operations. These are not problems that are likely to go away anytime soon; the question is: how can organisations create resilience in the face of these rare but highly disruptive events? How do we remove the reliance that we have on centralised offices? Contact centres are often especially badly hit in these circumstances as call volumes often go up as a result of incidents such as flooding as the number of employees available to take calls goes down, if they can’t get into work.

This ties in nicely with the next theme...

Challenge number 2:

Martini Rules OK: The Rise of the Anytime, Anyplace, Anywhere, Any Device Worker

The age of the Martini worker has truly come now. People are increasingly able to work anywhere and through any device. Coffee shops are increasingly becoming places where people stare intently at screens whilst sipping their lattes. Trains are now filled with people thumb typing on their smart phones. The landscape of work has changed for many people with the barriers to doing work anywhere at any time with any device coming down.

For a number of years, BT has been at the forefront of this concept of the anytime, anyplace, anywhere, any device worker. The motive was, initially, a financial one about property rationalisation. As Neil Sutton, BT’s Vice President of Global Portfolio, explained at one of the ‘Beyond the Cloud’ events: “one of the key things BT did was to virtualise a lot of our operation. We virtualised all of our data centres. Over 60,000 of our employees now can work in a mobile way – they can work from home or turn up in any office and work in a standalone way and that allowed us to significantly rationalise our property portfolio, taking £500 million out of our property costs.”

This flexibility of workstyle tends to work for both customers and employees, as Bridget Taylor, one of the ‘Beyond the Cloud’ event panellists and CEO of Customer Service Direct, BT’s joint venture with Suffolk County Council, explained: “It’s not just about customer satisfaction, it’s about employee satisfaction as well. If it makes the job easier because you are giving them the right tools and they become more productive, that makes them a lot happier in their work. Simple things like not needing to go into the office at the start of each day make a difference.”

£500 million

savings as a result of rationalising BT’s property portfolio.

Promoting a more mobile workstyle is the bewildering array of devices that are becoming internet enabled now – from Netbooks to smart phones to televisions and games consoles – and these all have variable degrees of processing power. However, if the power lies in the network rather than the device you get advantages that are summed up by one of my favourite geeky bumper stickers: “my other computer is a data centre!”

Gartner [16] found that around 24% of employees in large businesses run their personal PCs on corporate networks. This is often because our home technology is often vastly superior to the corporate technologies that come as standard issue – and the millennials in the workforce will often prefer to use their trendy personal technology rather than the brick that they have been issued with.

Can we envisage a time when the individual, instead of being issued with a “one size fits all” underpowered and inappropriate IT device (e.g. laptop, desktop, netbook), will be given an allowance with which to purchase appropriate equipment? Or could, in order to get a job, will we have to show that you own the proper tools, much like a car mechanic or a plumber do now?

This tends to give IT departments headaches but access to applications anywhere from any machine can create huge resilience advantages. No longer do we have to sit around feeling as if a major limb has been severed whilst we get our work PC repaired because we can't get access to any applications that we work with from any other device.



24%

of employees in large businesses run their personal PCs on corporate networks.

Challenge 3:

The Agile and Assetless Organisation

This has long been a prediction in the futurologist's arsenal but there are increasing numbers of large organisations that are essentially assetless and, as a result, extremely agile. Gartner [15] rather ambitiously predicts that by 2012, 20% of organisations will own no IT assets. I'm not sure if that level of asset shedding will be achieved, even with the economic pressures of a down economy, but having IT assets on demand can be an attractive prospect.

In this world, large and small can potentially compete on a level playing field, business applications and people can be turned on and off at the speed of life, specialised skills and tools are effectively rented for the duration that they are needed and then discarded or upgraded. You can also get the scalability that networks can give – so if there are sudden bursty periods of activity (e.g. Christmas for retailers), you can turn up the capacity as if you are turning on a tap.

We are also seeing the rise of spontaneous, ad hoc, self organising, cross enterprise, collaborative behaviours through the use of social networking applications. Centralised access to tools can create huge opportunities for collaboration and sharing across diverse groups of individuals. Corporate use of applications such as Twitter and Yammer is growing because there are few barriers to sharing information (which can be a problem if people start to share commercially sensitive information indiscreetly in public).



20%

of organisations will own no IT assets by 2012 according to Gartner.

6

Issuing a Challenge for Future Business

With the perfect storm of innovation and new business models emerging from a tough economy, customers changing more than the organisations that serve and employ them and technologies which enable people to break the routine pattern of centralised office work and allow them to collaborate in different ways, there seems to be an opportunity to rethink the ways in which businesses are run.

However, businesses like order – they are ‘squares’ with centralised budgets, governance and processes. A lot of these emergent models and behaviours challenge these basic business premises. This is a world where ‘blobs’ (emergent groups of similarly minded individuals) can overpower the ‘squares’, as demonstrated by smart mobs and social media campaigns.

Businesses like institutions, hierarchies and processes because they help them to make sense and organise the complexity of real life (at least giving the illusion of order and control in an otherwise blobby world). The blob’s way is naturally anarchic, passionate, emergent and chaotic but, when mobilised, can be undeniably powerful – but can blobby-ness prevail? Dennis Howlett, a highly regarded enterprise 2.0 expert, suggests that blobby behaviour will always be subsumed by the structures and hierarchies of the square enterprise because it “pre-supposes that you can upend hierarchies for the benefit of all” [17]. He questions how much patience blobs will have when hitting their collective heads repeatedly against the side of the square. Square Enterprise culture is, in fact, the very opposite of blobby-ness and is designed to minimise anarchy and chaos through rule adherence, hierarchical management control and strict budget allocation. Is future business going to be a compromise position between blobs and squares or will the status quo of the square prevail?

Technology is an enabler for this kind of change rather than a cause of it. Many of the challenges that lie in the future for businesses are as much about shifting attitudes, management style and decision making as using internet enabled, scalable shared services.

Whether these are delivered by cloud, smart devices, social networks or other means is largely irrelevant compared to the seismic shifts in organisational strategy, culture, trust and politics that business as unusual requires. Is business really ready for this shift?

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Technology is an enabler for this kind of change rather than a cause of it.

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