IBM

Business benefits of converged communications

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*Converged communications holds
the potential for adding value to
your business.*

Executive summary

The great challenge in the modern business environment is to do
more with less. It is a fact of life that crosses sectors and boundaries,
and brushes aside traditions and heritage. No-one is immune. The
pressures to improve the way we work are relentless and everywhere.
Faced with this situation, enterprises must work smarter and find
ways to drive out inefficiency without driving away customers.

When so much of our time is spent communicating – with colleagues,
customers, contractors, suppliers – it stands to reason that improving
the efficiency of how we communicate will have an impact on our
competitive advantage. Developments in technology and, more
importantly, how we use the technology present such an opportunity.
The integration of audio, video and data networks through the World
Wide Web and its common 'language', called Internet Protocol (IP),
opens the door to a new way of communicating, unrestricted by old ideas
about telephones, lines and switchboards. Converged communications
holds the potential for simplifying increasingly complex telephone
and data networks, improving employee productivity and enhancing
customer satisfaction. In other words, for adding value to your business.

Converged communications brings together voice, video and data
technology through their common use of IP to fashion a seamless
business environment that is potentially greater than the sum of
its parts: it is 'cocktail' communication – a mix of any device, any
time, anywhere.

Converged communications can lead to more effective customer service and improved employee productivity.

The value comes from the ability of converged communications to foster realtime collaboration across time zones and locations.

Enterprises and organisations large and small have already realised the benefits of converged communications; enterprises such as Standard Life, one of the world's leading assurance companies, which improved competitiveness and operational efficiencies by adopting converged communications. It and many others have been guided on their journeys to converged communications by IBM. We are a leading exponent of converged communications – as you would expect from the company that has one of the largest integrated networks in the world. This gives us unparalleled expertise not just in how to implement converged communications but in understanding the business benefits that arise from it. They include:

- *Widely-distributed 'virtual' working groups and contact centres*
- *More effective customer service solutions*
- *Improved employee productivity*
- *Integrated business communications.*

Potential benefits from adopting converged communications may not be immediately obvious in an atmosphere of relentless cost-cutting. Financial savings and return on investment are not the primary motivator, although you can make substantial medium-term savings. Instead, the value comes from the ability of converged communications to foster realtime collaboration irrespective of location or time zones, while unified messaging enables users to find a subject matter expert or an answer to a question immediately. Colleagues find they can share, discuss and develop ideas with their counterparts anywhere in the world in a way that mirrors getting round a table and flip chart stand, but without the travel costs and inevitable delays while they get everyone's diary aligned.
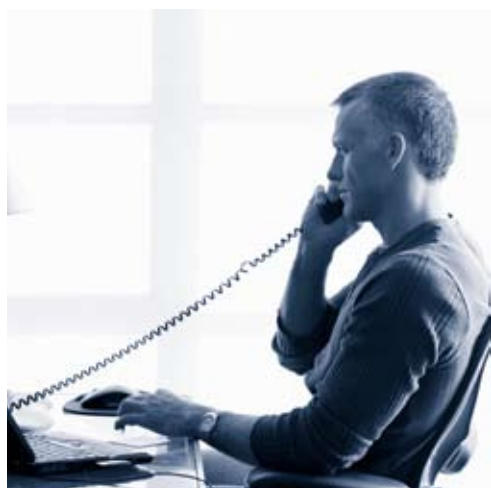
Such benefits remain beyond the reach of companies that place their reliance solely on traditional voice technology. In the traditional enterprise environment, voice communication is a self-contained service with its own hardware and software, and specialised service providers. In the new environment of IP telephony and converged communications, voice is handled as data. Voice communication – telephone calls – becomes just another standardised application connected to the data network. To the people at each end of a telephone conversation, it makes no difference how the sound arrives as long as it does so at the expected levels of quality, reliability and security. But they now have the added flexibility, if they wish, to use their laptop or desktop as a 'soft phone'. For people on the move, this can be a boon – and for employers, it can save substantial amounts on IP telephones, so that only those who need them get them.

But why stop there? Removed from its silo, telephony can be integrated into the enterprise data network, reducing the complexity of running multiple, single-purpose systems. In this environment, voice itself can become a 'killer' application. The new standard environment integrates services such as voice mail, global telephone network, directory, presence, unified messaging capability, text-to-speech, conferencing, online phone and address book and more. Even legacy telephone systems linked by a switchboard (PBX) can be integrated. When voice is added to the other IP-compliant applications in use today, enterprises really begin to see what the technology can do for them.

IBM has a simple message to enterprises baulking at the prospect of replacing – at substantial cost – a telephony system that still works. There's no need to, and the return on investment will often not warrant it. The business case for converged communications does not rely on a one-time 'rip and replace' scenario. Instead, integrate in planned stages – as IBM has.

Integrated business communication helps enable large savings in overheads.
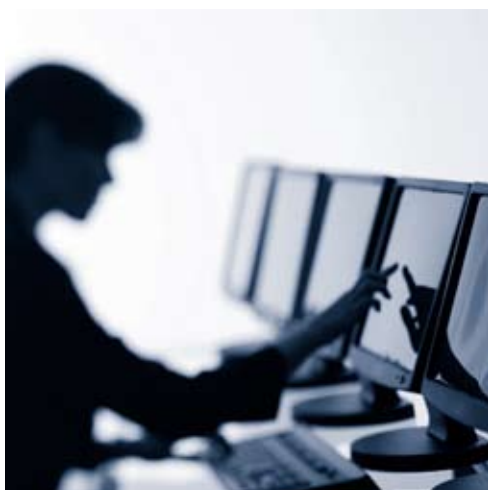
The open standard protocol offers flexibility by enabling seamless integration with other compliant applications.

Experience

IBM is a case study of integrated business communication through IP convergence. We took a global decision early in the new millennium not to invest further in 'traditional' telephony, turning instead to IP systems. The move allowed a rationalisation of telephony management to only 12 centralised delivery clusters to replace about 900 traditional PBX systems worldwide. While the strategy enabled IBM to save a huge amount in the overheads of operating, maintaining and supporting those systems, its principal value was in unlocking the potential of a range of business applications and tools.

It was not an overnight transformation, nor was it carried out in isolation. In fact, deployment continues. Connection of sites to the central servers was carried out in tandem with adoption of a mobile workforce strategy. Instead of fixed workspaces and infrastructure, staff now tap into global resources by 'plugging in', physically or through wireless connections, anywhere on the network.

While migrating to IP telephony, we took the strategic decision to adopt the open standard Session Initiation Protocol (SIP) for Internet conferencing, telephony, presence, events notification and instant messaging. Because SIP originated in the data-driven environment of the Internet and not the telephony world, it offers greater flexibility by enabling seamless integration with other SIP applications.

Replacing external suppliers with a converged IP network can significantly enhance end-user experience and enables dramatic savings.

For IBM, the business case for converged communications rested on benefits from greater use of applications. Audio conferencing, a business tool used heavily by many enterprises, is an area where IBM has seen huge benefits. By running its own IP network with a conference bridge, IBM not only saves on the costs to external suppliers but can take advantage of SIP applications running on a standard network. For example, participants can see a visual representation of the conference bridge: the names of those on the call and those absent or awaited, an indicator of who is talking and who is waiting to speak. Participants can even share their ideas through 'whiteboarding' – just as they would in a real meeting but without the travel hassle and productivity hit.

By replacing outside suppliers with our own converged IP network, we have seen huge savings alongside a significantly enhanced end-user experience.

Achieving all this internally has given IBM rich experience, which is invaluable in helping other enterprises do the same thing – making us the catalyst in the use of communications to integrate enterprise business processes. Not only do we understand the technicalities and business benefits, we also understand the non-technical barriers to success. Multinationals face many issues, with international deployments throwing up any number of new challenges. Having navigated these minefields successfully, we can now lead others on the same safe route. Familiarity with the way different local telcos work and getting to grips with geography-specific regulatory and technical issues are all part of our experience.

Converged communications brings value to enterprises of all sizes. There are as many advantages for SMEs as for multinationals.

But converged communications is not the private preserve of multinationals – it brings value to enterprises of every size. All modern businesses need to communicate, among their employees, with their customers and suppliers. It doesn't matter how big they are or how widely they are dispersed. There are just as many advantages for SMEs as there are for large enterprises. With broadband near-ubiquitous, any lingering technical objections are quickly dispelled. Data networks that were not possible 10 years ago can be built relatively inexpensively today by taking advantage of installed but unused fibre optic capacity. Many fixed costs can be transformed to variable costs by predefining terms for, as examples, increasing bandwidth or adding services such as video conferencing.

Highlights

- *Easier for customers to contact Standard Life.*
- *More efficient deployment of resources.*
- *Greater productivity among financial advisors.*
- *Flexibility to stay responsive in a dynamic market.*

Responsive in a dynamic market

Standard Life, one of the world's leading assurance companies, was able to improve competitiveness and operational efficiencies by adopting converged communications for telephone, data and other communication services. As part of a five-year managed services contract, IBM helped the Edinburgh-headquartered group realise benefits to its global business by upgrading its IP data network to handle voice as well as data. IBM delivered primarily to the UK Life & Pensions business, allowing them the flexibility to change the shape of their remote office network through IP convergence. Customers report finding it easier to contact Standard Life, the system gives managers a comprehensive overview of call patterns so they can adjust working patterns accordingly, and financial advisors use it to work more efficiently and productively. Through the IP communications network, Standard Life has gained the flexibility to stay responsive in a dynamic market. The result is enhanced customer service, reduced costs and improved competitiveness with advanced technologies.

Business benefits from integrated networks

Converged communications is not about technology; it is about business value. Technology makes converged networks possible, but technology is only the starting point. The key to top performance is integration of best-in-class components – from fibre optics to software – to create an open standard environment in which the business can best function. At IBM, we work closely with all the leading technology manufacturers and suppliers in a true integrator's role, bringing together IBM capabilities with those from strong partner relationships to ensure that the customer gains full benefit.

Shifting from a self-contained telephony silo to a standardised open environment opens up possibilities. One is the ability to enhance capabilities by integrating IP telephony applications with standard applications on the desktop. For example, integration of messaging and voice enables 'click to talk' over the IP network, where a click over a name initiates a voice connection to that person. With 'soft phone' capability (running your telephone on the desktop or laptop) you can plug into the network anywhere and access resources, collect messages and talk to people without even having a fixed or mobile telephone.

Opportunities arise to bring advantages of a fixed telephony infrastructure to the mobile world. A suitably configured handset with full GSM capability can automatically convert to a wireless networked device when it comes within range of the network, for example when you enter any branch office. As part of the internal network, calls are free but in addition to that saving, there are business benefits such as the ability to record calls for legal or training purposes. As all your incoming calls are directed through the one IP network, you have a single, unique telephone number wherever you are.

Highlights

- *Cementing strong community spirit.*
- *Connecting citizens through information.*
- *Making technology a useful, accessible tool.*
- *Piloting a solution for like-minded communities.*

London Borough of Newham

Newham in the East End of London has a varied population of a quarter of a million people speaking over 100 languages. The challenge for Newham was to take advantage of this variety to build a vibrant community without leaving people feeling disenfranchised and disconnected.

To build community spirit, the borough wanted to deliver information that residents could easily access and understand. The ultimate goal is to promote community spirit through universal accessibility to information.

The solution was to provide digital services via TV sets, offering video on demand and various PC applications, using IP television over a TCP/IP network.

After a successful pilot, Newham teamed with IBM to redesign and improve the service. It now also offers access to e-mail and the Internet as well as 100 TV stations in various languages. By August last year, the solution was supporting 1,000 residents across two estates, with plans to expand.

Because the solution, called RegenTV, is powered by scaleable hardware and relies on open source components such as Linux, it can be replicated by other boroughs and communities that want to provide residents with similar services. The flexibility and scaleability of the technology will ensure that more applications can be added as and when they are needed.

Highlights

With functionality in effect a moveable commodity, work can be moved to the location that is most suitable from an organisational, commercial or personal perspective.

Converged communications means technology is not an inhibitor to adopting a different model for purposes of cost savings or staff morale.

Global sourcing, local delivery

Converged communications makes it simpler to share work, spread job responsibilities or outsource to external suppliers, domestically or abroad. With functionality in effect a moveable commodity, the work can be moved wherever it is most suitably done, from an organisational, commercial or personal standpoint. Convergence is revolutionising call centres and helpdesks by allowing enterprises to use agents dispersed anywhere in the organisation. Big, centralised call centre buildings are likely to be less in demand over time, because staff located in geographically widespread branches – or even in their own home offices – can take customer calls.

Similarly, a single commercial function such as bookings and reservations, helpdesk and customer enquiries can be distributed anywhere on the network. This enables stronger continuity of service and allows better planning for the regular, predictable business peaks and troughs, as well as contingency planning for emergencies.

Converged communications extends the possibilities of effective home working. With the ability to configure individuals into the network at a location of their choosing comes the proven benefit of higher productivity from a better work-life balance. Of course, there may be cultural or organisational reasons why an enterprise would choose to centralise the call centre function. However, converged communications means technology is not an inhibitor to adopting a different model for purposes of cost savings or staff morale.

Converged communications is changing the way we work and relate to each other without most of us realising it. Leading organisations – companies, communities, institutions – have already made the decision to go to the IP model – and for those who have not, it's no longer a question of if, but when. Business leaders who recognise this are forging ahead and gaining first-mover advantage. Their wins come not from the savings in management and conference call costs – although these will be realised – but from the applications which become possible for employees and customers when voice and video are added to the data network.

Visionaries are studying how this change will affect us. They see advantages from the way contact centre agents work and interact with customers, to the way we work from home or on the move as effectively as if we were at a desk, to the way that businesses become more efficient and integrated communicators. Very different organisations are able to use converged communications to answer their business and community needs.

What is clear is that we are at the beginning of a huge change in the way business is done. Those who understand how to harness this flexible new technology for increased employee productivity and customer or citizen satisfaction will have a head start on the rest.

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