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THE DEFINITIVE GUIDE

CONVERGED COMMUNICATIONS

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Part 1 of 4 | INNOVATION

Corporates catch convergence wave

Linda More examines the benefits and challenges of moving data, voice and video onto a converged communications platform



■ The widespread acceptance that data, voice and video will routinely travel across the corporate network is indicative of how the concept of converged communications – where a single IP-based network carries all enterprise communication – has taken root. And yet, for such a near-universally accepted approach, it has been something of a slow burner.

The notion of network convergence emerged nearly two decades ago with frame relay – an early virtual private network (VPN) technology – and ATM-based infrastructures. However, these were cumbersome to manage, expensive to install and the surrounding technologies were immature. The introduction and availability of private IP networks in the late 1990s, with vendors such as BT and Cable & Wireless launching multi-protocol label switching (MPLS) VPNs, meant that enterprises could finally segregate and manage the traffic on their systems. This allowed voice and data packets to be carried on the same network. Nevertheless early adopters needed in-depth understanding of both their voice and data requirements to avoid massive bottlenecks and breaks in service.

While the benefits of a converged network – cost reduction from managing a single network, opportunities for improved productivity and more effective collaboration and the potential to develop new revenue-generating streams – have been noted, uptake has been slow.

According to recent research by analyst Ovum, only 40 per cent of the largest companies in the UK have moved to MPLS networks. “Increasingly, over the last 10 years we have seen companies converge their networks, migrating from legacy infrastructure to IP networks,” says Peter Hall, research director at Ovum.

But momentum is building. Today, even mid-sized companies are recognising the potential benefits and are commonly deploying converged infrastructures.

“The fact that companies have migrated to a converged network doesn’t mean that they are supporting both voice and data,” says Hall. “It means that they may be thinking about doing so in the future and have developed the infrastructure to support that possibility.” →

Gas and oil exploration firm Oilexco plans to integrate its offshore oil platforms into its voice over IP system



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Once enterprises have accepted the concept of a converged communications strategy they need IT infrastructure capable of supporting voice, video and data – usually across both fixed and wireless systems.

Migration of the telephony system onto all, or part, of the corporate IP network is commonly the first step, as and when the business or the technology refresh cycle dictates. Despite this slow start, Ovum estimates that 80 per cent of all the voice traffic in large enterprises will be running across the converged network within five years.

The drivers for this migration vary from ease of management to improved collaboration and decision-making. However, in most cases cost is not usually the compelling factor.

For British fashion brand Ben Sherman, its global infrastructure is essential to its success in the wholesale and retail markets. IT director Cormac McCarthy says the network has been developed and upgraded over the years and now every location around the world has a flexible fixed and wireless IP infrastructure.

“Whenever we open a new site we put in the best technology available that will allow us to run voice, video and data; however, our main problem is in justifying the expense,” he says.

While McCarthy recognises the benefits of integrating his telephony services across the network, he is also aware that the costs do not stack up. “Call charges used to be a big driver for moving to

voice over IP (VoIP), but when I can talk to New York for 8p an hour and Northern Ireland for 10p, there is no way I can justify ripping out perfectly serviceable PBX equipment. The only time it is acceptable is when building from new,” he says.

Restaurant chain Yo! Sushi implemented a converged voice and data network between its UK outlets in 2007 to run its point of sale and credit card services, as well as a pure IP voice system from Swyx. With the rollout of 10 new restaurants planned, having a robust infrastructure was an important consideration for IT manager Billy Waters. “Using a converged network solution simplifies the process, allowing us to plan each new site ahead of time, allocate IP numbers and deliver a full set of communications to each restaurant on day one, without the need for third-party carrier intervention,” he says.

Improving business efficiency, especially in the area of client contact, was a major consideration for legal services company Shoosmiths when installing a Siemens 8000 voice platform. “One of our values is that clients should be able to get hold of us easily, therefore our telephony system is an important asset,” says IT director David Basin.

The voice platform has been in place in the firm’s new Nottingham office for nearly a year, but has so far delivered very little in the way of cost savings, although Basin expects to see up to 30 per cent savings as it is rolled out to the other nine offices around the country and all 1,500 staff. →



“Whenever we open a new store we put in the best technology available that will allow us to run voice, video and data”

CORMAC MCCARTHY, IT DIRECTOR, BEN SHERMAN

Five companies helping to change the way firms communicate

Scriblink

A collaborative whiteboard application with built-in screen chat facility, VoIP conferencing and file transfer that users can share online. It allows up to five colleagues to get scribbling, adding text, sharing diagrams and creating new ideas for free. For a monthly fee a customised plan can be created for individual companies.

☎ www.scriblink.com

MegaMeeting

One of the many emerging low-cost desktop videoconferencing solutions that are appearing on the market, MegaMeeting offers secure web conferencing either as a hosted application or in-house on dedicated internal servers. With current fuel prices and the need to reduce our carbon footprint, desktop videoconferencing is



MegaMeeting offers low-cost videoconferencing

set to become an essential piece of technology over the next few years.

☎ www.megameeting.co.uk

The Cloud

Providing extensive outdoor Wi-Fi coverage in cities across Europe, The Cloud is one of the fastest growing wireless broadband service providers.

Responsible for the free Wi-Fi availability in McDonald’s restaurants, Heathrow airport and the City of London, The Cloud is transforming the way that we communicate outside of the office and is aiming to cover the UK. With mobile internet usage increasing, The Cloud is ideally positioned to deliver fast, affordable mobile broadband supporting voice, data and video.

☎ www.thecloud.net

Wiggio

Not quite an enterprise tool, Wiggio is a collaboration platform that was born out of Cornell University and its students’ frustration with the hassles

associated with working in groups, setting up meetings and sharing information. Providing a central, online toolkit that makes it easy to work in groups and manage projects, Wiggio brings collaboration into the Facebook era. A free toolset that has been adopted by student communities, it is worth a look when reviewing collaboration tools.

☎ www.wiggio.com

8el

8el provides the benefits of IP telephony without the bother of system administration. Promising a centralised, fully-managed, corporate grade VoIP solution that meets business needs in a cost-effective manner, 8el offers companies a flexible communications system that includes mobile working.

☎ www.8el.com



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5 key technologies

Unified communications

Unified communications (UC) is the integration of voice, video, data, instant messaging, conferencing and collaboration components into a flexible, personalised, controllable communications delivery system. UC promises to enhance individual and workgroup productivity.

Videoconferencing

High quality videoconferencing used to depend on dedicated video suites, expensive technology and high bandwidth to get the anticipated performance. But desktop videoconferencing has developed to the point that lower cost, lower bandwidth solutions have an acceptable level of quality.

Collaboration tools

Good communication is essential to the success of any collaborative venture, especially if the parties are in different geographies, regions or time zones. Rich, consumer-type communication and collaboration tools are going to become increasingly used within the enterprise, tailored to meet business processes and objectives.

Softphones

The days of the desk phone may be numbered; the mobile revolution means that mobile phones are used in preference to landlines, usually because the required number is already stored and can be easily accessed. Converged communications offers the choice of device, whether mobile, fixed or a softphone installed on a PC.

Netbooks

With mobile internet connectivity and integrated web cams these devices are set to become the ideal portable, converged communications tool. Add a cordless headset and microphone and potentially you have all the capabilities of a desktop system on the move.

“With telephony now part of the corporate network and under central management, we have seen a reduction in support costs. Disaster recovery is quicker and we are looking to exploit its features to support home working,” says Basin. “Our aim isn’t to force it in; as and when offices are refurbished we will move the telephony onto the network.”

Converged communications also opens up possibilities for new appli-

cations and services. One of the most talked about, and possibly misunderstood, is unified communications (UC). Integrating voice, video, data, instant messaging and conferencing components into a flexible, personalised, controllable communications delivery system, unified communications is a philosophy not a product. UC is about bringing together a raft of communications technologies and standards →



Basin: Clients can get hold of us easily



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to reflect specific business requirements, while facilitating the improvement of existing, and the creation of new, business processes.

Implementing unified communications is part of gas and oil exploration company Oilexco's plans to optimise further its communications channels across the business. Technical manager Pieter voor de Poorte says the next step is to integrate the offshore oil platforms into the ShoreTel VoIP system.

"With up to 90 rig workers doing shifts of two weeks on, three weeks off, Oilexco's explorations in the North Sea are a continuous operation," he says. "We want to see how well we can maintain quality of service offshore by installing high quality data links to the oilrig platforms. Productivity has improved as a direct result of installing ShoreTel – you can actually get hold of people now, even though geographically we're all in very different areas."

One of the fastest growing applications in the converged enterprise is desktop videoconferencing, with travelling and time costs encouraging greater use. However, this technology, with its requirement for huge amounts of bandwidth, is putting pressure on networks and needs to be carefully managed. Industrial technology manufacturer Smiths Group has embraced videoconferencing as a complement to face-to-face meetings and as part of its strategy to improve collaboration through communication.

Recognising that IT is not its core business, Smiths Group has outsourced its worldwide communications infrastructure to AT&T. "We are bril-



Craig Morey

liant at making machines that detect chemical substances in airport luggage, or keep blood at the right temperature, but we are not experts at managing a global network," says chief information officer Brian Jones.

Pooling its global requirements has resulted in economies of scale and the company expects to achieve annual savings of at least £2.9m on IT

"Using a converged network solution allows us to plan each new restaurant ahead of time, allocate IP numbers and deliver a full set of communications on day one"

BILLY WATERS, IT MANAGER, YO! SUSHI

and related costs. But for the company raising the performance bar around effective communication, collaboration and better decision-making are the key elements of its converged strategy.

"We want to ensure that the communication is better, not just give people another way of communicating," says Jones. "Because people communicate visually as well as audibly, videoconferencing makes the experience more realistic and allows us to tap in at the emotional intelligence level, giving a better understanding of what is being said. Our emphasis is on quality of communication, not quantity." ■

■ **Next week: In part two, IT leaders share lessons from implementing converged communications.**

BEST PRACTICE | PHIL SAYER, PRINCIPAL ANALYST, FORRESTER RESEARCH

How to reap the benefits of unified communications

Chief information officers (CIOs) tell Forrester that unified communications (UC) is a top IT priority, and only 13 per cent of enterprises recently surveyed had no plans for UC. But vendor proliferation, confusion about standards and problems with business case development are all major barriers. We suggest five principles to help enterprises navigate through this mire:

Develop a strategic plan for UC as part of an overall strategy for IT. Every CIO needs an IT strategic plan to set business expectations, establish credibility with the firm's executive management and bring coherence across IT. UC is now a core

part of IT – along with collaboration and information management. If you don't have an enterprise-wide plan for UC, you will end up with dead-end silos and waste money.

Build a business case based on cost savings. IP telephony will reduce operating costs, and built-in voice conferencing facilities will cut your conference bridge bill. Videoconferencing will help you reduce your corporate travel bill, and UC features such as softphones will enable people to work at home when they need to.

Involve business leaders in strategic decisions and vendor selection.

Because UC feeds collaboration, business leaders take an interest in UC and its impact on the productivity and success of their teams. Today, 58 per cent of UC decisions are heavily influenced by the business buyer.

This trend can only increase, so work with business leaders who can champion the use of the technology.

Bring in professional help to assist you in designing a UC and collaboration architecture. System integrators will be well positioned to win many UC deals because they have the relationships and skills that many other industry participants do not – and they have a deep understanding of industry business processes where

UC and collaboration will have the biggest impact. UC and collaboration software can help you to innovate by changing and streamlining business processes.

Make the most of existing vendor partnerships. When money is tight, a phased migration plan is not just good sense, it is the only practical way forward. The differences between vendor functionality will not justify a move. Maximise the continued use of existing equipment until you need to replace it. Adopt an open standards-based strategy – no one vendor is best at everything, and this approach will enable you to keep your plan flexible.