

Managing the bandwidth explosion with Telecoms 2.0

Businesses are increasingly using new, media-rich content to drive efficiency and become more competitive. With media such as podcasts and video streaming changing the way we interact both at home and in the office, network managers are re-evaluating their communications architectures to support these performance sensitive applications. The emergence of Next Generation Networks (NGNs) - which can accommodate voice, data and video traffic - offer the technical capability to support this shift. However, telecoms providers must adopt progressive, customer service driven mindsets in order to arm businesses with the assets to change. It is the combination of network capability and service mindset which delivers Telecoms 2.0.

In recent years, bandwidth demands have increased exponentially. The Internet is now a daily fixture in our lives, and news stories on the so called 'bandwidth crunch' are appearing on a weekly basis. If these stories are to be believed, the Internet is a finite resource which is struggling to cope with the burgeoning volumes of data, resulting from multimedia applications, image driven, user generated content and video. This may be unfortunate news for consumers, but what does this mean for businesses that rely heavily on network connectivity on a day-to day basis? In order to understand where this demand originates from and how it can be met, it is necessary to examine the changing nature of network usage both at home and in the office.

Media-rich applications in the workplace

Users are increasingly using media-rich applications. The popularity of social-networking and sites such as YouTube and Facebook have played an important part in driving the acceptability of video. Many workplaces have now recognised the benefits of a high-speed, efficient network and employees are increasingly taking advantage of voice and video based applications, like IP multi-media in the office. Furthermore, high performing networks between offices allow the sharing of data files, increasing knowledge sharing across the company.

In addition, many businesses have recognised the advantages of a mobile workforce and are embracing modern working practices such as remote working and hot-desking. However, remote working from satellite offices still requires access to company data, so an 'access-anywhere' virtual private network (VPN) is essential. Integrated communications tools such as desk-to-desk videoconferencing and telepresence ensure that communications between clients and colleagues are easier to implement and use than ever before, regardless of geographical location. Similarly, the use of Voice-over-IP (VoIP) telephony ensures that staff can keep one contact number wherever they are working from, screen calls through their computer and reroute calls and voicemail to their mobile or laptop. Consequently, employees are contactable at any location and at any time during work hours, minimising communication 'downtime.'

Network Managers – How to Respond

The use of these applications presents a new challenge to today's businesses that must be addressed. However, restricting the use of bandwidth intensive applications that put pressure on the existing network is not a solution. So how can CIOs, IT buyers and network managers keep up with the evolving demands of the workplace and provide the required network capabilities?

Businesses that run their networks over traditional lines like ATM, leased lines, or frame relay, are starting to feel the strain. These traditional networks use circuit switched technology that don't scale well to rapidly changing demands and are expensive. Traditionally, when bandwidth requirements grow rapidly, telecoms providers would sell the enterprise a new circuit, and leave them to sort out the integration of it into their existing network.

The ideal architecture for running media rich applications involves the convergence of voice, video and data over one platform, using a NGN based on packet switched technology. As staff expectations rise regarding mobility, speed and flexibility, IT managers are facing more demands and in turn must expect more from their network provider. It is reasonable for network managers to expect their provider to deliver solutions that can flex to their changing needs. NGNs are fully scalable which means they can easily evolve with a business to meet its ever shifting challenges.

Network Provision means mindset plus capability

Until now, providing fibre in the last mile has proved a challenge for legacy telco providers who only have the network spine. However, ntl:Telewest Business has invested £13bn in a network which boasts 186,000 km of fibre built out to more than 38,000 local street cabinet throughout the UK, making it the only complete UK-wide NGN. This has allowed it to lead the way in responding to businesses' calls for scalable next generation solutions.

However, the technology and capability is only half the answer when it comes to providing a robust communications network. A telecoms provider must also have an open, collaborative mindset that enables a 'can do' approach towards organisational needs. This approach shouldn't stop at the door of the Multi National Corporation it should extend across the spectrum of organisations, regardless of size. It is about sitting down with customers to design the best solution to fit their business needs rather than just supplying a circuit and walking away from the integration. Equally, providing local support and service management teams that understand the local needs of the customer rather than supplying a 'one size fits all' from a centralised support function, will provide organisations with the assets for change.

Ethernet VPN - A Next Generation Solution

As every business is unique, only consultation and collaboration with your network provider can determine which solution is the most appropriate to meet your requirements. For example, the ntl:Telewest Business Ethernet offering provides many UK businesses with flexible virtual private networks (VPN) that can scale to the demands of a bandwidth hungry environment. A VPN running on packet-switched Ethernet, known as an EthernetVPN, is superior in scalability and flexibility to traditional circuit-switched networks, as the easy addition of new circuits means it copes with bandwidth surges. Equally, as EthernetVPN provides up to 10 times more bandwidth for your money, the cost benefits are evident.

Packet-switched, EthernetVPNs are fundamentally better-suited to flexible, “any-to-any” communications, for example IP voice calls, collaborative working or telepresence, because the network locates the end-user rather than being based on a complex system of deterministic routing. Migrating to the packet-switched architecture of a Next Generation Network allows for convergence of voice and data over a single infrastructure.

Whilst an EthernetVPN improves the user experience and simplifies the network manager’s life in the longer term, its any-to-any architecture could appear a complex challenge to implement. However, with the support of a network provider, this becomes far less daunting than being left to integrate a series of point-to-point circuits in-house.

The good news is that today, network managers can demand a more consultative approach from their telco providers. By drawing on the breadth of knowledge that their telco provider has, organisations can ease the burden of their technical challenges. It is only when service teams are on the organisations’ doorstep can a strong collaborative relationship develop, which allows both the customer and the telco to truly understand the migration path. It is this service driven mindset combined with next-generation technical capabilities, that are defining the next-generation of telcos - Telecoms 2.0.

For more about ntl:Telewest Business and next generation telecoms, please visit www.telecoms2.info or call 0800 953 0180.