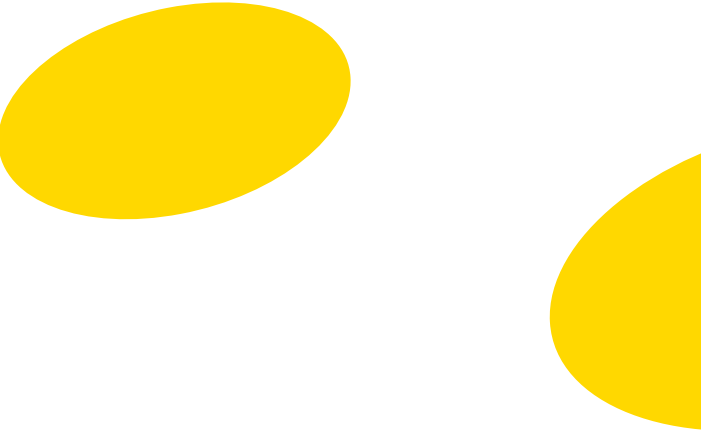


Optus IP Index 2006



How Internet Protocol
technologies are used in Business.





The Optus IP Index
is an annual survey that tracks the evolution
and application of IP technologies in the Australian
corporate sector. It provides an important perspective on
business and technology trends.

**Now in its fifth year, the Optus IP Index is designed to help
business customers understand and learn from the
experiences of other IP-enabled businesses.**

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Introduction

WELCOME TO THE OPTUS IP INDEX 2006.

Since launching our first IP networking solution in 1998, Optus has been at the forefront of IP networking for Australian businesses.

We have invested considerable time, money and expertise in building the largest next-generation IP network in Australia. With the acquisition of Alphawest in 2005, Optus took a major step forward in its convergence journey and now offers a full range of ICT services. The business of Alphawest is to identify, create and deliver ICT value to corporate and government clients.

As a result, Optus is well positioned to assist businesses in streamlining their operations through leveraging the usage of mobile and IP technologies - exploiting opportunities in the new era of telecommunications convergence.

Today, Optus' IP solutions enable hundreds of businesses across Australia to improve the efficiency, flexibility and mobility of their voice and data communications in a convergent environment.

The shared insights and experiences of such customers can help businesses evaluate the opportunities and chart their own IP journey. Contained within the Optus IP Index 2006 is a detailed and valuable summary of the latest findings.

I look forward to discussing these results with you.



John Simon

Managing Director, Optus Business

About Optus IP

Optus is a full-service Internet Protocol (IP) solutions provider with extensive experience in the deployment of large-scale, high-quality IP networks.

As part of the SingTel Group, Optus is at the heart of Asia's leading communications company and has the largest IP network footprint in the Asia Pacific region.

Throughout Australia, Optus provides business-grade IP network connectivity to hundreds of corporate and government customers. The organisation operates a robust network with advanced quality of service features based on the Multi-Protocol Label Switching (MPLS) standard. By virtue of this network, its capacity, reach and quality, Optus provides a comprehensive range of flexible and dependable IP-based services. Key amongst these services are:

- data,
- telephony and mobility WAN connections,
- outsourcing,
- storage and hosting.

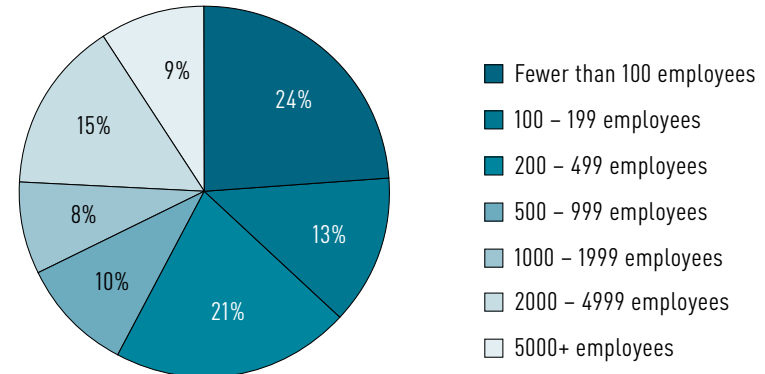
Optus has a track record of being first to market with innovative IP-based solutions, including secure remote access via IP Virtual Private Networks (VPNs), managed IP telephony, mobile data and satellite connectivity.

Survey methodology

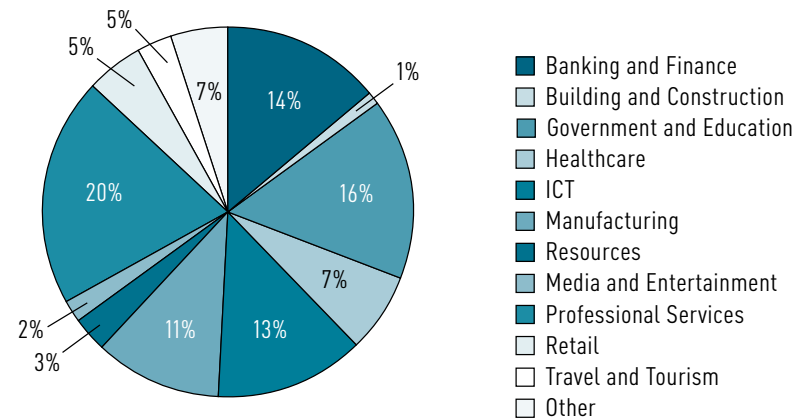
The basis of the IP Index 2006 is a series of comprehensive interviews conducted during September 2006 with 89 Optus Business customers throughout Australia. The customers surveyed were drawn from a range of diverse vertical and horizontal industries. These include information and communications technology, banking and finance, government and education sectors.

The respondents were representative of the diverse size of businesses operating in Australia. Of the 89 businesses participating in the survey, 24 per cent had fewer than 100 employees and 9 per cent had in excess of 5,000.

Survey sample by number of employees



Survey sample by industry sector



Executive Summary

IP NETWORK USERS

- Providing customer access to online services continues to be a priority; with two in three businesses providing access to information, resources and services via an IP connection.
- While employees remain the principal users of IP networks, over the last 12 months there has been a decline in the proportion of businesses extending IP network access to supplier or business/channel partners.

USER ACCESS TECHNOLOGIES

- Some 92 per cent of businesses now provide network access to home workers via IP VPNs, enabling them to access enterprise applications, such as corporate email.
- The increasing trend towards mobilising the workforce and instant anywhere, anytime availability is reflected in an almost twofold increase in the number of businesses providing mobile broadband access and an almost 10 per cent increase in the use of cellular data technologies (3G and GPRS).
- While the increase in remote and wireless access to private and IP VPNs does present security challenges for businesses, almost 70 per cent regard IP as a safe and secure communication medium, with a further 16 per cent being unsure.

IP APPLICATIONS

- While Web and email remain the principal services accessed by business users over IP networks, more than two in three organisations are confident enough in IP to deploy other mission-critical applications such as Oracle, SAP and CRM systems.
- Despite general expectations, there has been little acceleration in the deployment of convergent applications such as teleconferencing, videoconferencing and unified messaging over the past 12 months. Almost 20 per cent of businesses, though, continue to offer these services to their users.

WAN CONNECTIVITY

- In the last 12 months the use of DSL broadband has overtaken Ethernet WAN and Frame Relay to become the number one technology for site-to-site communications.
- Reflecting demand from users for low latency and media rich applications, the majority of businesses are planning to increase network bandwidth in the next 12 months.
- Of businesses still using Frame Relay to connect multiple sites, more than 40 per cent are planning a move to a combination of DSL and Ethernet in the near future.

IP TELEPHONY

- The shift towards IP-based voice communications is gaining momentum, with the number of businesses evaluating or trialling VoIP solutions rising from 66 per cent in 2005 to 72 per cent in 2006.
- Perceived cost benefits is the principal driver for VoIP deployment, with 54 per cent of businesses stating their move to VoIP was prompted by lower call costs and a further 42 per cent stating lower support costs.
- While VoIP is delivering on its promise in terms of direct cost savings, businesses that have deployed VoIP solutions are also realising benefits in business performance. More than one in five businesses (22 per cent) reported improvements in productivity and almost one in three (31 per cent) reported increased mobility of workers on campus.

3G

- Third-generation (3G) mobile technology offers a compelling proposition to business customers. Approximately 50 per cent of businesses have deployed 3G handsets to their users and one-third plan to add more handsets to their mobile fleet over the course of the next 12 months.
- Businesses are taking advantage of data capability in 3G handsets to provide mobile email access to users. Seventy per cent of businesses using 3G handsets now have users accessing email in this way.
- 3G handsets are being used as a tethered modem by 13 per cent of businesses, allowing users to browse the Web and establish a secure IP VPN connection to download documents and files to their laptops when out of the office.

CONVERGENCE

- While businesses are at different stages along the convergence path, almost 80 per cent say they have plans to embrace convergence solutions or have already begun implementing a converged solution.
- The number of businesses with plans to converge voice and data networks has more than doubled in the past 12 months, with a jump from 10 per cent in 2005 to 24 per cent in 2006.
- One in five businesses are now in the process of upgrading network and systems infrastructure to support the additional bandwidth and latency requirements of convergent applications.

IP network users

Employees remain the principal users of IP networks. While the number of businesses providing IP access to customers has slightly increased, over the last 12 months there has been a decline in the proportion of businesses extending dedicated IP VPNs to other third-party users.

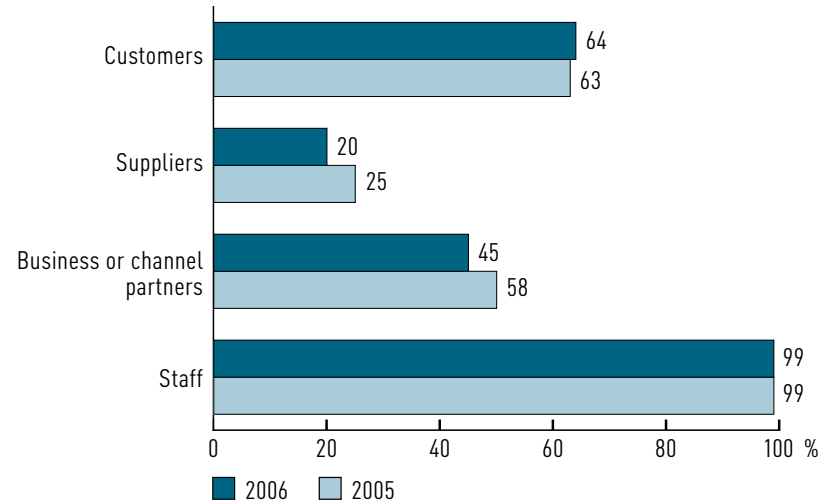
Of the businesses surveyed, almost all (99 per cent) offer IP connectivity to their employees. This is unchanged on last year's figures.

Customers continue to enjoy a high level of access via IP network, with two-thirds (64 per cent) of businesses connecting with customers in this way. This is just a one per cent rise on the figure for 2005.

However, the number of businesses allowing business partners or suppliers to access corporate information or systems via a dedicated IPVPN service has fallen from 58 to 45 per cent and 25 to 20 per cent respectively. One of the reasons for this decline is that more businesses are choosing to extend access to business partners via Secure Internet VPN solutions rather than dedicated IP VPN services.

The chart opposite summarises developments in this area.

IP network users



LOOKING AHEAD

As enterprises look to gain competitive advantage in the market, providing an improved customer experience is viewed increasingly as a means by which higher levels of customer satisfaction and loyalty can be generated. Online access to services can help in this regard as well as bringing about a significant reduction in support costs.

The improved security over the public Internet using SSL based technologies will drive continued growth in the adoption of Secure Internet VPN solutions. Using SSL makes it easier for companies to offer application access that is specific to individual users. Ultimately, this represents a low-cost alternative for companies seeking to extend application access to a variety of users globally.

Users access technologies

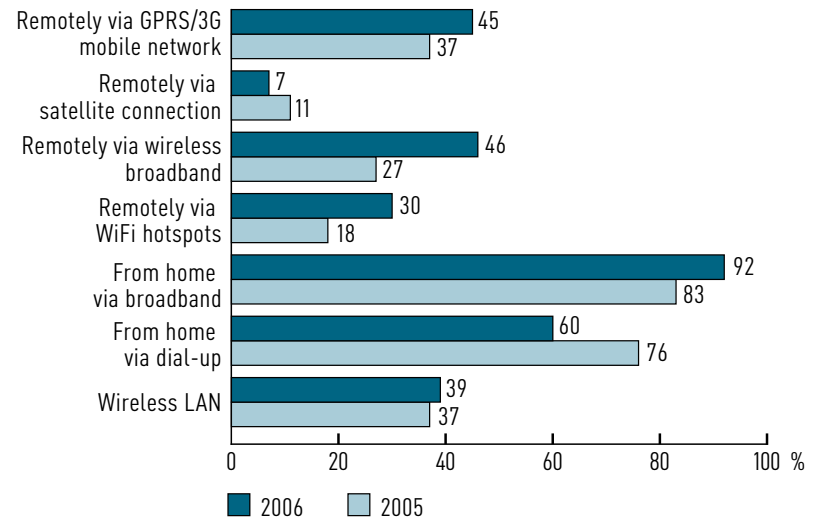
Businesses are increasingly taking advantage of remote and wireless access technologies to support home and mobile workers.

While the traditional Ethernet LAN remains the staple means of connectivity within the office environment, the number of employees working from home, on the road or in remote offices is growing. This trend is driving – and in turn being driven by – access to low-cost domestic broadband and wireless technologies. Some 92 per cent of businesses now provide corporate network access to home workers via IP VPNs, enabling them to access enterprise applications, such as their corporate email.

The main growth area, however, is wireless connectivity. Almost one in three businesses (30 per cent) provide wireless access via Wi-Fi, increasing from less than one in five in 2005 (18 per cent). More dramatic is the rapid adoption of mobile access technologies, with an almost twofold increase in the number of businesses providing mobile broadband access to employees (from 27 to 46 per cent) and an increase in the use of cellular data technologies (3G and GPRS) from 37 to 45 per cent.

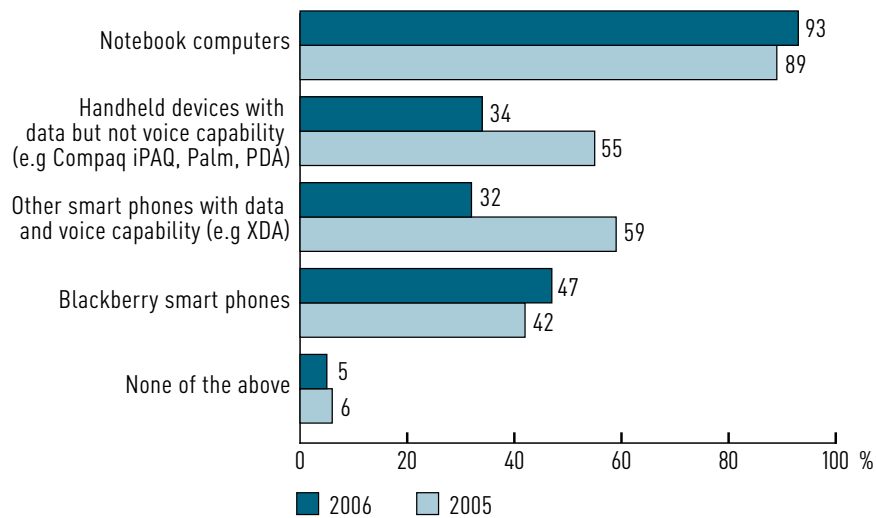
With the proliferation of Wi-Fi hotspots and the rapid growth in mobile and wireless broadband solutions, employees are no longer restricted to working at their desks or in office environments. Executives and employees can access company information, applications and services such as email anywhere and at any time. This is a direct result of IP bringing a reliable standard platform to networking.

User access to IP networks



Interestingly, while the proportion of businesses deploying Blackberry devices has continued to rise, the number choosing to deploy smart phones and hand held devices with data capability has declined. Access to corporate email when out of the office has driven this trend as enterprises introduce mobility into the work place. As smart phones & handheld devices are now becoming 3G and Wi-Fi enabled and business applications are developed for these devices, smart phone and handheld adoption may increase.

Use of mobile devices to access your IP network



LOOKING AHEAD

The continuation of wireless network rollouts including 3G mobile, fixed wireless broadband and Wi-Fi will, in effect, create a “national LAN”. IP networks overlaid with appropriate security solutions will enable enterprises to provide ubiquitous secure access to applications.

The trend towards workforce flexibility and mobility will drive the use for remote access yet raise the prominence of security as an issue to be addressed. Although most IT&T managers are convinced of the security credibility of IP networks, interest in managed security offerings is predicted to increase.

Business IP applications

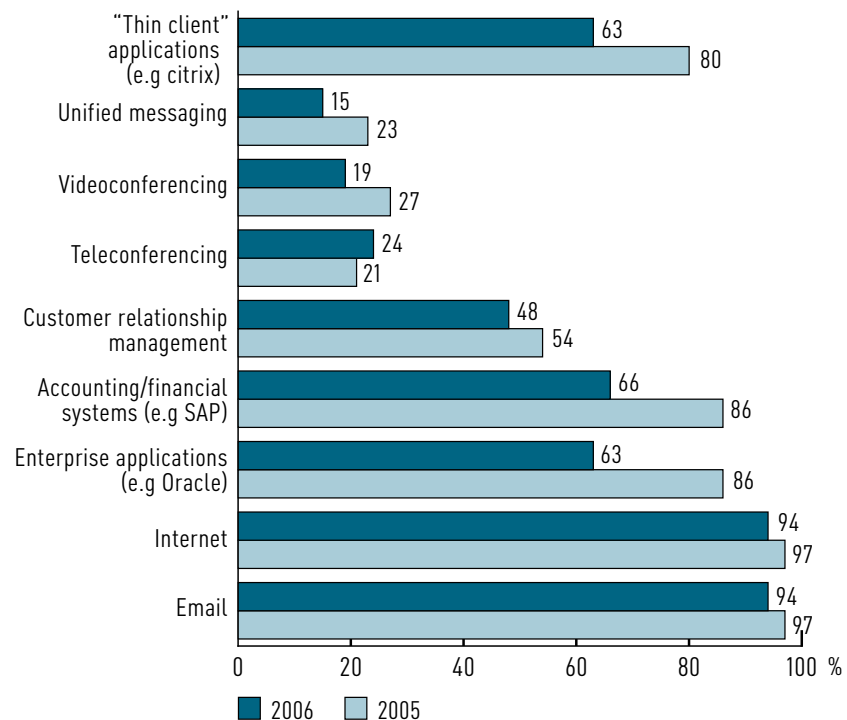
Web and email remain the principal services accessed by business users over IP networks. More than two in three businesses see IP as a secure and robust platform on which to deploy other mission critical applications such as Oracle, SAP and CRM systems.

Confidence in the security, performance and reliability of IP-based communications is enabling more businesses to Web-enable many internal and customer facing business applications, as well as extend access to traditional enterprise applications over a private IP VPN.

Almost 70 per cent of businesses regard IP as a safe and secure communications medium and only one in twenty (4 per cent) say they are dissatisfied with the security arrangements for their IP network. While one in five (20 per cent) regard IP as safe for some applications – but not all mission critical applications – two in three (64 per cent) state they would run mission critical applications over their IP network.

While the last 12 months has not experienced the acceleration in the deployment of convergent applications such as teleconferencing, videoconferencing and unified messaging, almost one in five businesses continue to offer these services to their users.

Core applications currently run over IP Networks



LOOKING AHEAD

In addition to traditional core enterprise applications, we expect to see more applications, such as sales force, field force and order management, consolidated via Web-based interfaces. The result of this consolidation will be a more simplified delivery of applications to mobile and remote workers as well as external users, such as customers and business partners.

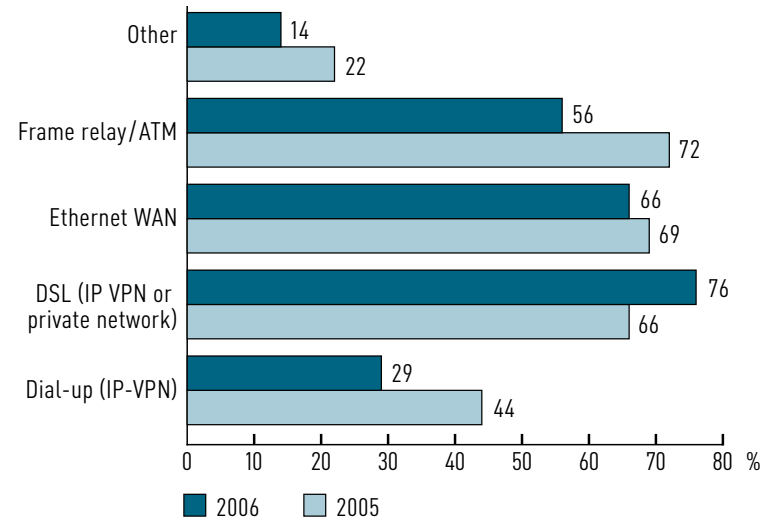
WAN connectivity

IP-based networks (private and VPN connections) are rapidly increasing in popularity as a secure enterprise networking solution. Reflecting demand from users for low latency and media rich applications, the majority of businesses plan to increase network bandwidth over the course of the next 12 months.

In the last 12 months the use of DSL broadband has leapfrogged Ethernet WAN and Frame Relay to become the number one technology for site-to-site communications. More than three-quarters of all businesses now use a broadband IP connection to link multiple sites. In general, businesses are deploying Ethernet WAN to connect major offices and disaster recovery sites, and DSL services to connect small or remote branches where bandwidth requirements are lower.

The rise in broadband is driven principally by a migration from Frame Relay, which was used by 72 per cent of businesses for site-to-site connectivity in 2005 but now accounts for just 56 per cent. Of those still using Frame Relay, 41 per cent state they intend to switch to a combination of DSL and Ethernet in the near future.

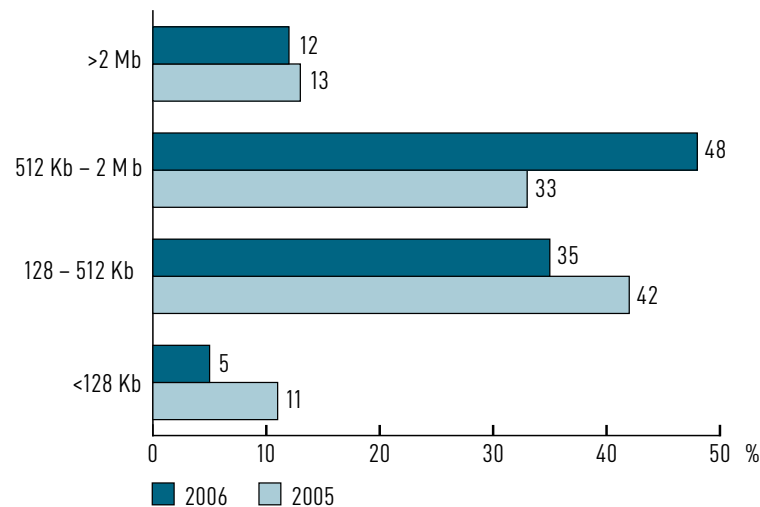
Site-to-site network connectivity



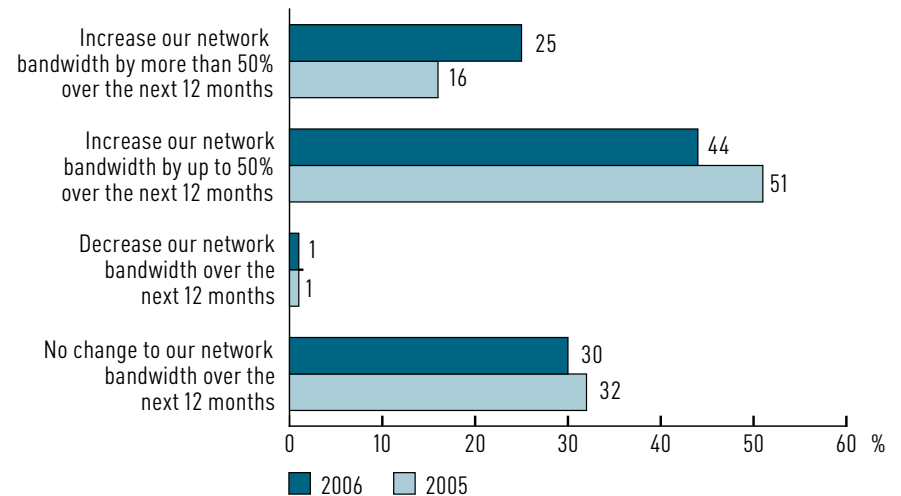
Along with the fact that more businesses are turning to broadband as their stated requirement for higher bandwidth. While the number of businesses with a greater than 2MB connection has remained relatively constant over the past year, there has been significant decline in those with sub-512KB connections and a corresponding jump in those now choosing a faster 512KB-to-2MB connection. Two in three businesses (69 per cent) plan to increase their bandwidth requirements by 50 per cent or more in the coming year.

While communication-based applications such as VoIP and videoconferencing are placing additional demands on corporate IP networks, the continued explosion in email and HTML traffic remains a dominant driver for bandwidth growth. To prevent bottlenecks and optimise the performance of bandwidth-hungry or low latency applications, almost two-thirds of businesses are using Quality of Service (QoS) to prioritise voice and data applications across their private IP VPN network.

Current bandwidth for broadband IP-VPN or private network



Expected bandwidth requirements over the next 12 months



LOOKING AHEAD

Perceived as a marginal networking technology only three years ago, IP is now the dominant means of connecting business sites. The number of users and applications carried over this service is rising, as is the demand for bandwidth.

The improved speeds and cost-effectiveness of high-bandwidth access technologies such as DSL and Metro Ethernet will see further demand for additional bandwidth. In turn, this will drive more widespread usage of media-rich or low latency applications such as video and voice.

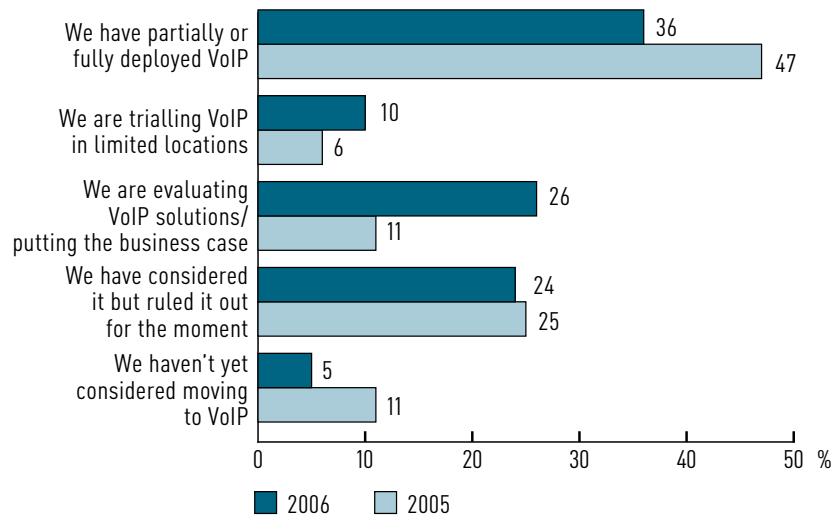
A major development in the coming months will be the introduction of ADSL2+, doubling the number of downstream bits and offering data rates as high as 24MB downstream and 1MBs upstream. Optus is currently building out its ADSL2+ network, with plans to offer bonded DSL services that will allow it to double the available bandwidth to business customers and extend the reach of its business grade services.

IP telephony

The shift towards IP-based voice communications is gaining momentum, with the number of businesses evaluating or trialling VoIP solutions rising from 66 per cent in 2005 to 72 per cent in 2006.

While the survey sample for 2006 showed a slight dip in the number of businesses claiming to have partially or fully deployed VoIP, their numbers evaluating and trialling VoIP solutions has increased considerably. Significantly, the number that have yet to consider moving to VoIP has halved from 11 to just 5 per cent.

Deployment of VoIP

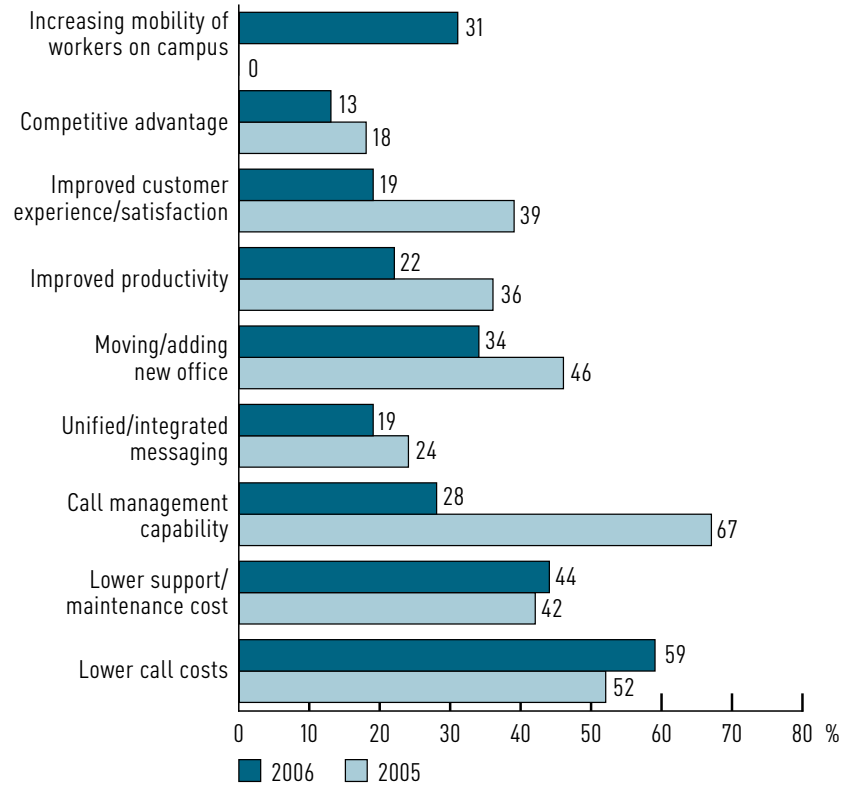


Upfront cost remains the biggest barrier to a move to VoIP, with more than half the number of businesses yet to deploy a VoIP solution citing implementation cost and current investment in legacy PBX infrastructure as a concern for their organisation. Contrary to the experience of users, 40 per cent state concerns over voice quality is a barrier to adoption.

However, cost is also the principal driver for deployment, with 54 per cent of businesses saying lower call costs and 42 per cent saying lower support costs prompted their move to VoIP. The experience of those having already deployed VoIP confirms expectations. Of the businesses surveyed, 59 per cent said they had benefited from lower call costs and 44 per cent reporting lower support and maintenance costs since implementing a VoIP solution.

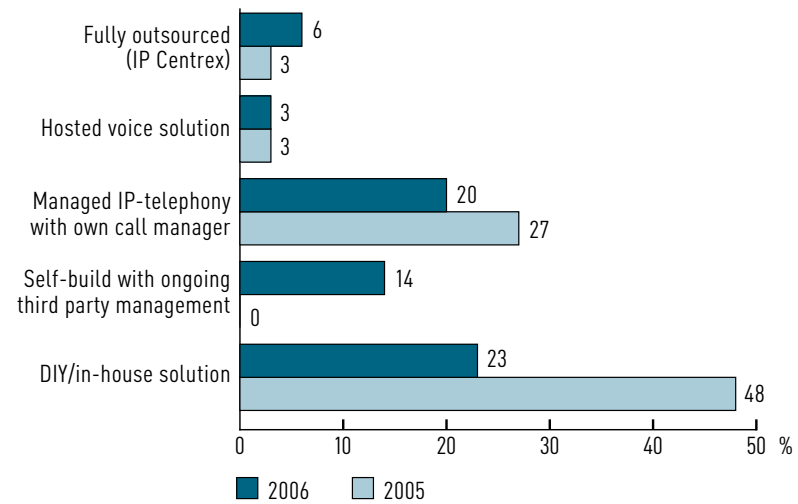
Beyond the direct cost savings, VoIP is delivering spin-off benefits in terms of business performance. One in five businesses (22 per cent) reported improvements in productivity and almost one in three (31 per cent) saw benefit in an increasing mobility of workers on campus. This shows that VoIP technology can provide a wide-range of benefits for business performance.

Benefits of VoIP Deployment



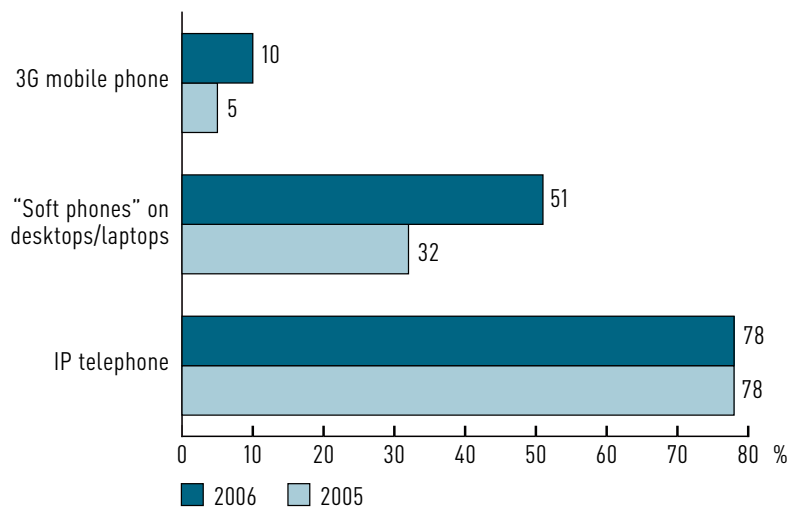
DIY deployments are still the most popular deployment mode for Australian businesses, with more than one in three (37 per cent) opting to deploy their VoIP solution completely in-house or as a self-build with ongoing third-party management. While interest in managed IP-telephony solutions waned slightly over the past 12 months, there is growing acceptance of hosted or fully outsourced IP telephony solutions. One in three (32 per cent) are unsure.

Deployment modes adopted/expected for VoIP solution



The initial transition to VoIP was characterised by a move from PSTN to IP handsets. However, over the past 12 months there was a further shift, with more businesses deploying soft phone technology on PCs and laptops. The enhanced functionality of 3G is also enabling businesses to take advantage of the cost benefits of IP resulting from the ability of employees to make VoIP calls from mobile handsets.

User access devices for VoIP



LOOKING AHEAD

Businesses have made significant investments in PSTN technology and their enterprise PABX systems. To maximise the residual value in these systems most companies are looking to adopt a staged approach to VoIP migration.

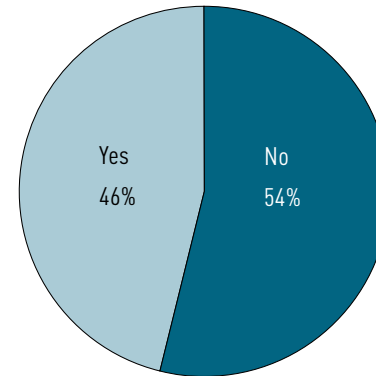
In many cases the initial stages have been self-implemented, however over time, as businesses expand the scale and scope of VoIP deployments, it is expected that fully managed and hosted solutions will become more prevalent. These solutions remove the need to purchase and manage individual PABX systems, enabling companies to stay focused on their core businesses while being able to take advantage of additional VoIP functionality including video conferencing, document sharing and unified communications.

3G

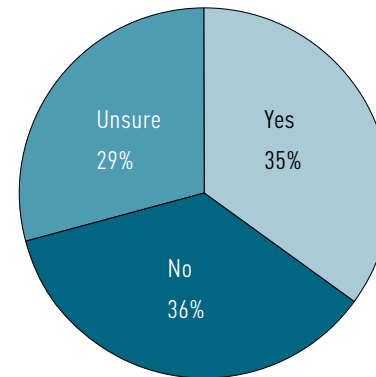
Third-generation (3G) mobile devices offer a compelling proposition to business customers. One in two businesses have deployed 3G handsets to their users and one in three plan to add more handsets to their mobile fleet over the course of the next 12 months.

3G mobile communications services offer corporate users powerful new technologies to improve business agility, streamline operations and optimise performance. 3G also offers important technical advantages, including faster download speeds, enhanced services, greater security and improved reliability.

Organisations that have deployed 3G handsets to their users



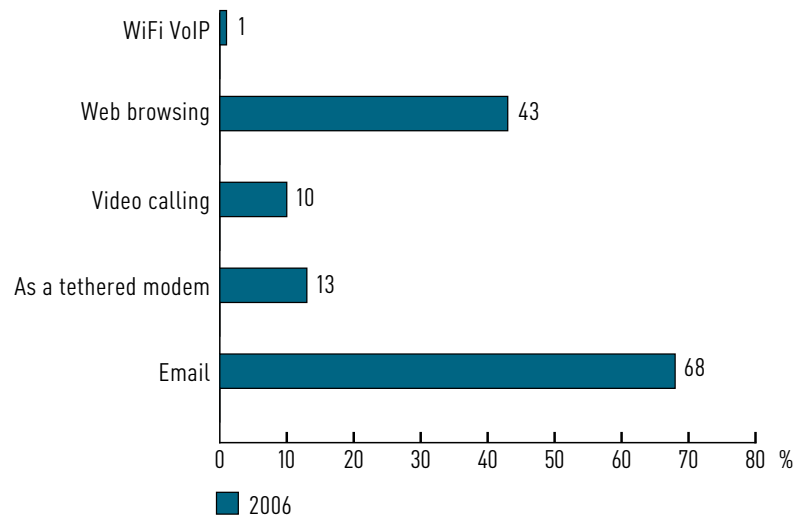
Organisations planning to add more 3G handsets to their mobile fleet in the next 12 months



3G provides high-speed network services that are truly mobile. For business users the most popular service is email. In almost 70 per cent of businesses where 3G handsets are deployed, email access is supported. A direct result of this is that travelling staff can use down time spent at airports, hotels, between meetings and even in taxis to check their email.

While Web browsing is the second most common data service on 3G handsets, many users are beginning to use their 3G handset as a tethered modem to enable them to browse the Web or establish a secure connection to the corporate network to download documents and files on their mobile computing devices. Survey results showed that 13 per cent of 3G users currently use their handset as a modem.

Business use of data services on 3G handsets



LOOKING AHEAD

The last 12 months have seen a marked increase in the availability and reliability of PDAs, smart phones and laptops. This is enabling businesses to offer more of their workforce a mobile phone as a means to mobilise the work force, leading to productivity gains. Increasingly, those who have both a desk phone and a mobile phone will use their mobile phones as the first choice. One of the primary reasons for this preference is that most users use their mobile phone as the main contact number storage device.

From a mobile data point of view, business people have been quick to recognise the benefits of receiving email on their mobiles. They are able to use their downtime to respond to email, which aids to improve business continuity and, importantly, customer satisfaction levels. Mobile email, together with high-speed access to the Internet via data cards in laptops, has underpinned what we refer to as the 'first wave' of mobility, with a major contributing factor being the higher speeds offered by GPRS and 3G networks.

Even more exciting is the imminent move by business into the 'second wave' of mobility as companies begin to recognise the value in extending their enterprise applications from the desktop to the coal face – workers in the field working face-to-face with customers. Increasingly, mobile devices are being used to access a broader range of corporate applications by personnel operating away from the office. Examples include sales force and field force applications that enable mobile workers to access customer and product information, close deals, take orders and place orders at the point of sale.

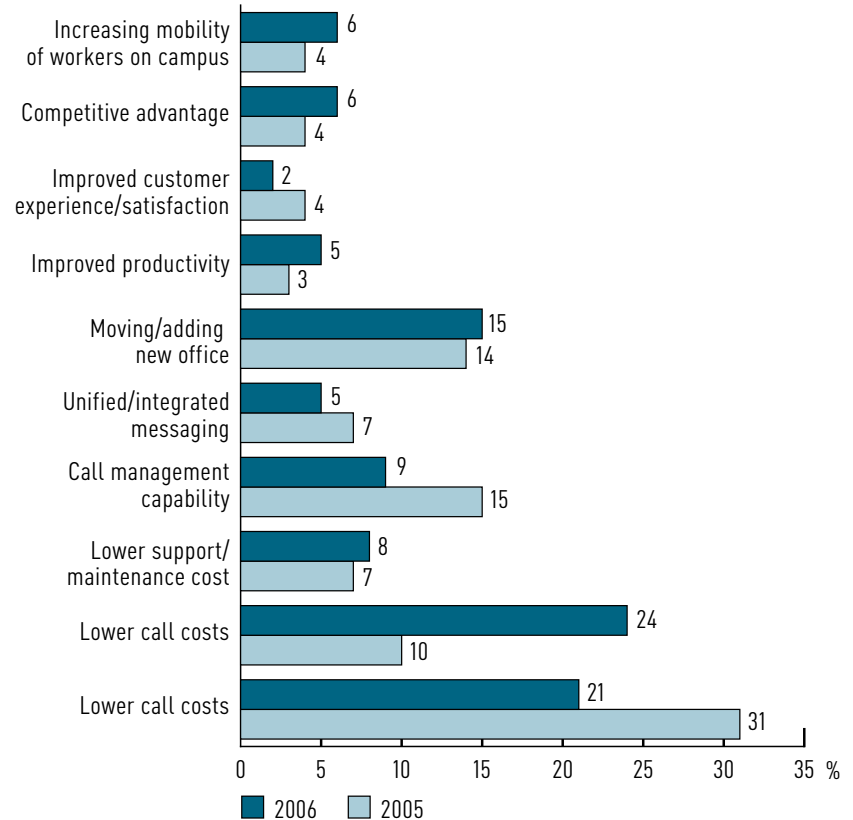
Convergence

While different businesses are at different stages along the convergence path, almost 80 per cent say they have plans to embrace convergence solutions or have already begun implementing a converged solution.

Convergence means bringing multiple applications (such as telephone and data communications) together onto the one secure IP network. This simplifies and enhances the way an organisation communicates, and removes traditional technology barriers that limit flexibility. With the merging of two standalone networks, it can also lead to dramatically lower deployment, support and administration costs.

Optus sees convergence as an evolutionary process, with businesses able to take a step-by-step approach towards a fully integrated convergent network infrastructure that supports voice, data as well as wireless and mobile connectivity.

Stages of network convergence



Of all businesses surveyed, almost eight in ten (79 per cent) have plans to, or are already, adopting a converged approach to their network infrastructure. The number of businesses with plans to converge more than doubled over the past 12 months from 10 to 24 per cent. A further 56 per cent have already commenced a convergent strategy, evaluating technology, trialling systems and performing necessary upgrades to networks and systems.

For those businesses that have progressed beyond the planning stage, upgrading the network infrastructure and IT hardware is a core focus. One in five businesses are now in the process of upgrading their network and systems infrastructure to support the additional bandwidth and latency requirements of convergent applications.

A number of businesses are now in the advanced stages of network convergence and are upgrading user devices to leverage the new infrastructure and adding mobile extensions to broaden network reach to wireless and mobile users.

LOOKING AHEAD

Optus believes the roadmap to convergence has four key stages. The first is when mobile and fixed users share common PABX features, such as directory, voicemail and short codes. In September 2006, Optus launched Optus Converged VPN (OCV) to deliver this functionality.

The second stage extends the same functionality to IP access for soft client and IP PBX extensions. This is expected in 2007 and Optus, in conjunction with Alphawest, are currently conducting the first field trial in Australia using the Nokia E-series handset with Cisco's low footprint client.

The third stage provides for a seamless handover between public and private networks, enabled by dual-mode handsets such as the Nokia E-series. The final stage is when integrated billing pulls together the networks, single handsets and reporting, delivering a single, seamless customer service environment

Case studies

SECURITY COMMUNICATION SOLUTIONS

“The ability to access e-mail, data files and other IP network-based resources from virtually anywhere is proving to be a major boon to the productivity of our sales people and company in general.”

Recognised widely as a world leader in wireless alarm monitoring solutions, the privately-owned Security Communication Solutions has emerged as a true innovator in exploiting the enormous potential of wireless and IP communication technologies.

Challenge

As Security Communication Solutions continues to grow in solution range, staff numbers and office locations, the ability to maintain truly effective levels of communication has become a constant challenge. Adding further to the company’s communications challenge was increasing number of mobile workers.

According to Security Communication Solutions General Manager - Partners, Daniel Cananzi, mobility is a core characteristic of the company’s business model. “It’s quite common for our mobile workers to be travelling interstate twice a week,” he says. “And this poses particular problems in relation to providing them with access to network resources such as e-mail.”

The need for highly effective wireless communication is felt also in Security Communication Solutions’ ever growing back-to-base monitoring customer installations. With in excess of 1,000 wireless alarm monitoring systems currently in the field, the reliability and speed of the communications infrastructure is of paramount importance.

Solution

In order to achieve greater freedom for Security Communication Solutions increasingly mobile workforce, the Optus Wireless Connect (OWC) service was adopted that provided mobile workers a wireless data card for their laptops to reliably access the Internet locally and, in many cases, abroad.

IP technology is also playing a part in achieving even greater market penetration, with an IP-based security solution taking full advantage of Optus’ ability to provide a private meshed IP network utilising both their wireless GPRS and fixed Optus Private IP (OPI) networks to provide high performance and high bandwidth data transmission capabilities.

Outcome

On the issue of supporting the company’s mobile workforce by means of Optus Wireless Connect, Cananzi comments: “The ability to access e-mail, data files and other IP network-based resources from virtually anywhere is proving to be a major boon to the productivity of our sales people and company in general.”

At the service level, IP-based technology has given Security Communication Solutions the ability to guarantee customer service levels. “Our IP network basically guarantees the availability of our alarm transmission facilities,” Cananzi says. “It’s the basis of one of our IP-based security products and gives us the ability to quickly and easily bring new customers on-line with an absolute minimum of infrastructure work required. Added to this is the fact that we’re planning to introduce security video feeds, which can also be implemented without worrying about the infrastructure. It’s there!”

THE SUNCORP GROUP

“We have a lot of people constantly on the move, travelling between head office, Melbourne and Sydney. As soon as they arrive at their destination and connect to the network, they have true and absolute functionality – just as if they were back in their home location office.”

With a market value of more than \$12 billion, the Suncorp Group is one of Australia’s undisputed leaders in banking, insurance, investment and superannuation. While the company operates primarily in Queensland, over the years it has moved successfully to gain strong footholds in New South Wales and Victoria.

Challenge

As Suncorp’s business continues to grow, the need for a workplace that supports true mobility and freedom to work has taken on increasingly greater meaning. According to the company’s manager of IT procurement, Rodney Splitt, this has given rise to the Suncorp Workplace Change program – a program designed to exploit the potential of IP communications.

“The business strategy is to provide all IT and communication services available to all personnel in all locations where we have a business presence,” Splitt explains. “The concept is that every staff member has access to their telephone extension and functionality, and their data regardless of where they are within the Suncorp operational environment.

“The ultimate goal is to ensure that at all times, people can move anywhere within the company and connect seamlessly to all their service, data and communications. Essentially, it’s taking the concept of hot-desking to a new level; and our IP network will be the foundation.”

Solution

In order to achieve its IP-based goals, Suncorp set out in early 2006 to increase the IP bandwidth capacity across its entire network. “Establishing the foundation – the higher bandwidth – was seen as absolutely crucial in making sure we could roll out the various applications and services

For personnel constantly on the move, IP handsets have been issued, and at a broader level, soft clients are being rolled out across the entire organisation. The soft client will give us the ability to achieve on the promised functionality of the ‘one device’, Splitt states. “Already, we have two of our smaller sites running VoIP and installing a larger site – around 2,500 people – which we expect to go live late in 2006.”

Outcomes

As a Queensland-based organisation with significant presences in New South Wales and Victoria, realising the benefits of VoIP within Suncorp has been almost immediate. “We have a lot of people constantly on the move, travelling between head office, Melbourne and Sydney,” Splitt explains. “As soon as they arrive at their destination and connect to the network, they have true and absolute functionality – just as if they were back in their home location office.”

Splitt’s attitude to the Suncorp IP-based initiatives is refreshingly pragmatic. “From an IT perspective, the success criteria is in direct parallel with that of the Workplace Change program,” he says. “We want people to be able to move into a small meeting room where they work in privacy, conduct impromptu meetings in a stairwell and connect via WiFi, or walk down the street and connect via 3G.

“That,” he emphasises, “rather than saying we’ve rolled out x number of handsets, is a real measure of success! It’s about providing people with an infrastructure for the data and voice communications that promotes innovation from within.”

TYRRELL'S WINES

“Our people now have access to enhanced telephony features such as call lists, flexible call handling and teleconferencing. With these communication tools, we’re finding that collaboration between users and customers has taken a major leap forward.”

Since releasing its first vintage in 1864, Tyrrell’s Wines has emerged to become one of Australia’s largest and most prestigious winemakers. The company has vineyards throughout South Australia, Victoria and New South Wales, and is a major international exporter, with its brands available around the world.

Challenge

With fixed telephony delivered via a traditional PABX solution, Tyrrell’s felt that, aside from its incumbent telephony provider paying little attention to its needs, there was a strong need for a single provider to offer fixed voice, mobile, data and network management services.

According to Tyrrell’s Information Systems Manager, Peter Kane, there were four primary challenges that were to be addressed squarely by the new solution – reduce call costs, present a more professional image to customers, provide a single reception for all inbound calls, and afford users greater handset functionality.

Solution

Following a request for proposals from Optus and Telstra, Tyrrell’s quickly identified the Optus proposed solution as being the only one that would meet its challenges. The solution, which was proposed in partnership with Newcastle-based CSA, was given additional emphasis by the offer to visit Optus/CSA customer sites that had implemented IP telephony systems.

The Optus/CSA solution consisted of an Optus Private Internet (OPI) network connecting Tyrrell’s four sites and incorporating prioritised traffic for data and voice applications.

Outcomes

While Kane expects ongoing benefits to arise from Tyrrell’s new IP-based services, the fact that all four challenges have been met successfully and immediately is the most notable result. “Everyone enters projects with a wish-list of outcomes,” he says. “What’s rare is that the project actually delivers on those outcomes – and this is precisely what we’ve achieved here.

“We’ve already seen a significant drop in our telecommunications costs; and this is something we expect that over time will provide a 100 per cent return on investment.”

For the 100+ users spread across two wineries, sales and marketing offices in Sydney, Melbourne and Brisbane, the introduction of new IP telephony handsets has significantly improved productivity. “We’re seeing dramatic improvements right across the board,” Kane says. “Our people now have access to enhanced telephony features such as call lists, flexible call handling and teleconferencing.

“With these communications tools, we’re finding that collaboration between users and customers has taken a major leap forward. Teleconferences, for example, are no longer costly and difficult to set up, so it’s now something that is becoming quite the norm. The result? People are working together and communicating with each other more effectively and with greater freedom than was ever the case.”

In commenting on line quality – that feature of VoIP over which many organisations tend to hesitate – Kane states unhesitatingly: “It’s excellent and better than many of us had expected.

“To be quite frank, if we removed our VoIP and went back to the old analogue systems, people throughout the organisation would be screaming at us.”

Glossary

3G	Third Generation encompasses high speed data access and greater voice capacity. Analogue phones are considered the first generation and digital cellular phones are considered the second generation.	IP Telephony	IP Telephony uses Voice over IP (VoIP) technology to transmit voice and data over an IP network.
Convergence	Convergence brings data, voice and video communications together onto the one secure IP network.	IP VPN	An IP-based Virtual Private Network (VPN) is the use of a public telecommunication infrastructure, such as the Internet, to provide remote offices or individual users with secure access to their organisation's network.
DSL	Digital Subscriber Line is a family of technologies that provides digital data transmission over the wires of a local telephone network.	GPRS	General Packet Radio System (GPRS) is a packet-based wireless communication service that provides data rates averaging 30kbps up to 50 kbps and continuous connection to the Internet for mobile phone and computer users.
ADSL2+	This extends the capability of basic DSL by doubling the number of downstream bits. The data rates can be as high as 24MB downstream and 1MB upstream depending on the distance from the DSLAM to the user's location.	MPLS	Multi-Protocol Label Switching (MPLS) is a standards-approved technology for speeding up network traffic flow and making it easier to manage.
DSLAM	Digital Subscriber Line Access Multiplexer is a network device, usually located at a telephone exchange that connects multiple customer DSL connections to a high-speed backbone line.	PABX	Private Branch Exchange (BPX) is a telephone switching system within an enterprise that switches calls between users on local lines, while allowing all users to share a certain number of external phone lines to connect to the PSTN.
HTML	Hypertext Markup Language	PSTN	Public Switched Telephone Network
IP	A protocol by which data is sent from one computer to another over the Internet.	QoS	Quality of Service (QoS) is a way of prioritising traffic in a network, to ensure that high-priority traffic (such as voice packets) takes precedence over low-priority traffic (such as data).
IP Centrex	IP Centrex is a Voice over Internet Protocol (VoIP) solution where the equipment providing the call control and service logic functions is owned and operated by the service provider and is located on the service provider's premises.		

- SSL** Secure Sockets Layer (SSL) is a protocol for securing data communications on the Internet, providing encryption and authentication of transactions.
- VoIP** Voice over IP (VoIP) is a term used in IP telephony for a set of facilities to manage the delivery of voice data over an IP network.
- WAN** A wide area network (WAN) is a geographically dispersed telecommunications network. The term distinguishes a broader telecommunication structure from a local area network (LAN).
- Wi-Fi** Short for “wireless fidelity”, is the popular term for a high-frequency wireless local area network (WLAN).

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