

Asian Pacific Telecommunications brings the benefits of Cisco **IP Telephony** to its Melbourne office buildings



Background

In 2000, Asian Pacific Telecommunications (APT) was founded by its parent company Asian Pacific Building Corporation (APBC), a leading Victorian commercial property developer.

Asian Pacific Telecommunications' charter is to design, implement and market the IT&T infrastructure required by the tenants of today's 'smart' buildings, built by its parent company.

To date, Asian Pacific Telecommunications has successfully installed flexible IT&T solutions with converged (voice and data) networks into key office buildings serving hundreds of tenants in metropolitan Melbourne.

Asian Pacific Building Corporation employs more than 100 people servicing over 10,000 building occupants. Asian Pacific Telecommunications has enjoyed service take up rates greater than 85% across all sites since its inception, and to date has 100% take up at St Kilda Rd Towers.

Challenge

In 2000, APBC recognised that IT&T infrastructure was a critical consideration for businesses looking to rent or purchase office space. They also acknowledged that IT&T requirements varied considerably, according to the size and nature of the business involved.

Typical occupants of APBC buildings range from a sole trader working out of a serviced office, to a company leasing or purchasing an entire floor or more. Each company also had differing technology needs, from a single phone line to broadband technologies including fax and voice over IP services.

Asian Pacific Telecommunications believed they could add value by offering clients' state-of-the-art technology solutions including integrated voice, Internet, high-speed data and storage options with the flexibility for growth.

David Sheridan, General Manager of Asian Pacific Telecommunications explains: "By combining development and construction experience with an understanding of the IT&T needs of contemporary businesses, we were looking to create a unique 'Business Network Precinct' concept, which we knew would suit our clients. What we were looking to do was leverage economies of scale by cabling entire buildings and linking them into state-of-the-art networks. We knew that most companies would get tremendous value from a secure high-speed digital connection including broadband connection to the web, converged networks pushing both voice and data and unrestricted access. We also knew that they would find these services highly attractive if they were offered at a reasonable rate."

With the challenge of finding the best high-speed networking solution, the APT team investigated Cisco Systems' Architecture for Voice, Video and Integrated Data (AVVID).

The cost-efficiencies, manageability and flexibility it offered quickly convinced APT that the future of integrated communications lay with a converged IP Telephony network which they could roll out across their office buildings.

Solution

Leveraging Cisco's Architecture for Voice, Video and Integrated Data (AVVID), APT has built an impressive broadband network that services five office buildings in downtown Melbourne. Any business operating within these buildings can easily be switched into the network and then, with as little as one phone connection, they can benefit from the speed, productivity and cost enhancements of IP Telephony.

David Sheridan explains: "For example, in St Kilda Road Towers at 1 Queens Road, there are 600 suites on 15 floors serviced by two core Cisco Catalyst 6509 switches and fibre Optic cable, which runs from the basement to the penthouse floor. Each floor has a Cisco Catalyst 4000 switch and corresponding inline power, which is required for IP Telephones.

Running into each suite or office is single Cat5 cable and points, and a 10/100MB connection. To get on the Internet, APT has installed a 10MB broadband pipe and uses Cisco 7200 routers for gateway functionality to the outside world.

To ensure that the entire system is secure, APT has developed a Virtual Local Area Network (VLAN) that spans the 14 floors, providing each client with their own Virtual Private Network complete with a robust Cisco Firewall for security.

APT has also installed Cisco CallManager software, which, via the Cisco 7940 and 7960 IP XML handsets, offers corporate and building phone directories, missed calls/received calls, multi-party conference calls, phone forwarding to the Web, caller ID and phone calendar.

APT has also deployed PSL for voice mail. It's a powerful communications server that works in conjunction with Cisco CallManager to provide advanced, convergence-based services – such as voicemail and unified messaging – and integrates them with common desktop applications.

To provide an accurate Internet billing solution, APT turned to systems integrator Iocom. David Sheridan comments; "Iocom in conjunction with Fortress developed a unique Internet billing package which enables us to accurately track and manage Internet usage for our clients. We've made it easy for them to see usage, peaks and what they're using the Internet for, which helps them better manage productivity."

To manage the VoIP billing, APT installed Melbourne software development company CMS Hospitality's Front Office Manager software solution. CMS Hospitality is one of two Cisco VoIP Development Partners in Asia Pacific.

CMS Hospitality CEO Brian Manning explains: "Asian Pacific Telecommunications wanted to be able to manage their clients IP Telephony with an accurate accounting solution. IP Telephony offers many benefits including better visibility and accountability and with Front Office Manager, we can provide APT's clients with a better understanding of how they use the telephone. Front Office Manager connects with Cisco VoIP Telephony records and downloads all related information to our secure database. From this database, APT can marry call time and costs against a company and bill them accordingly.

"If a company wishes to see a breakdown of all costs we can provide an analysis report via a secure website, including information such as most expensive calls, most phone number dialled and who makes the most calls."

Results

According to David Sheridan, the key benefits to APT and their clients are the cost-efficiencies and flexibility of the converged network.

"By building 'smart' buildings with IP Telephony networks, our clients benefit from reduced costs, minimised infrastructure and better manageability. With IP Telephony, all the companies have toll-free by-pass, which means calls around a building or to another building in the group are free of charge. Staff can quickly and easily communicate with companies in each of our locations, which increases the potential for personal networking and business-to-business initiatives.

"As a result, we have created a community of interest. For instance, the cafe in Exchange Towers uses the XML handset to push advertising to other handset screens around the building, especially around 11am when people are beginning to think about having a coffee!"

"From a management perspective, the AVVID network is easier and more cost-effective to maintain in many ways. IP networks need nowhere near the support that the old PABX systems used to require. With the older PABX system, we had to call out an engineer to implement changes, which could take anywhere up to a day. We couldn't link sites either because most PABX systems are incompatible with each other, making company expansion far harder.

"With an IP Telephony network, it's simply a question of adding a Cisco router and IP handsets and then linking them via our frame relay network. We can maintain the network ourselves with a small team of engineers who travel between our locations, although most of the maintenance can be carried out remotely via a web browser. For example, we can program the handsets

remotely and even put XML pages on the phones to update all the businesses' contact details, latest stock market reports or weather information.

“Another benefit of a converged network is that because there is only one cable to install for everything, instead of two (one for phones and one for data), cabling costs are halved. We've also found the network to be extremely reliable as a fully redundant system with built-in failsafe mechanisms.”

Partnerships

For a successful IP Telephony rollout of this magnitude, it's essential to work with a comprehensive architectural plan and reliable partners. Asian Pacific Telecommunications was able to achieve their goals in an organised, timely manner as a result of their strong partnerships with Cisco Systems, NetStar Networks, AAPT, connect.com.au, CMS Hospitality, Iocom, Fortress and PSL.

Cisco Systems Engineer Peter Cox coordinated the implementation with NetStar Networks, PSL and connect.com.au to ensure that each element of the converged network was rolled out seamlessly.

“The APBC building is the epitome of elegance and functionality,” he said, “and that was exactly what they required for their network – a simple, powerful and elegant architecture that would support enterprise-standard communications.

“With Cisco Systems technology solutions and our experience, we were able to deliver exactly what was required.”

Asian Pacific Telecommunications business model has proved successful in past due to the partnerships they have developed.

David Sheridan comments: “Without our partners unwavering commitment we wouldn't be able to deliver on the services we offer. We initially turned to companies such as Cisco Systems, CMS Hospitality and Iocom because of the innovative software and solutions they develop. However, as our customers rely on us to deliver, we rely heavily on our partners to deliver, and they do.”



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