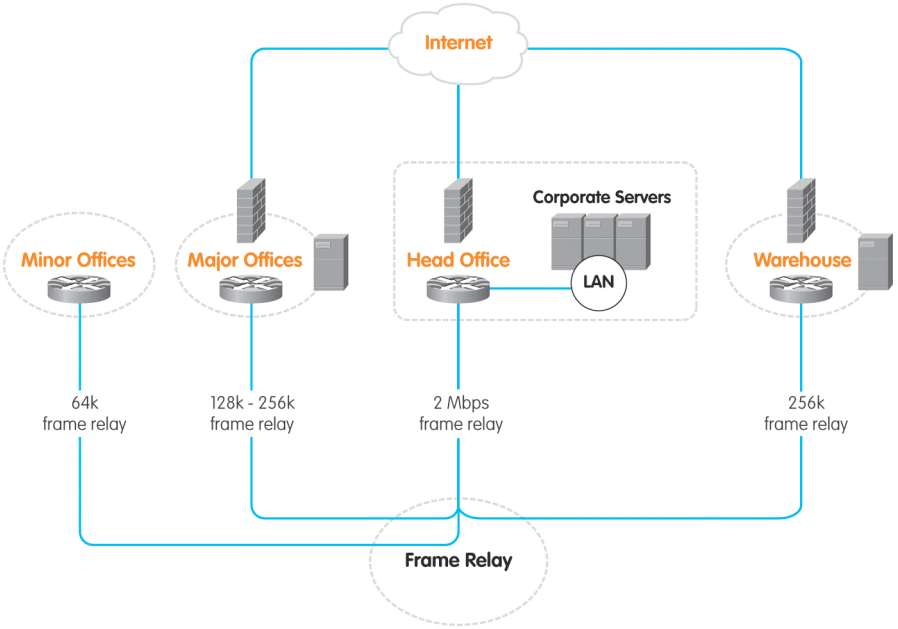
Case Study: Internode Business Connect

The Background

Our customer has a number of business sites across Australia, and last year approached Internode to discuss a network upgrade.

The company had a frame relay wide area network interconnecting the various business sites, dating back to the late 1990s. When this network was installed, all corporate servers were located at the head office, and the traffic to remote sites was generally low bandwidth 'green screen' applications.



Ten years on and the network was struggling. Despite the high rental costs of the network, the bandwidth was inadequate for the new generation of applications – including an explosion in the number and size of emails; a massive increase in Internet usage; and a mixed environment of telnet, Citrix (thin client) and Office (fat client) applications.

Users were frustrated at the poor response times from IT systems – in fact several remote sites had resorted to installing their own file servers and broadband Internet connections, to bypass the network bottlenecks. These represented a serious security and management risk for the organisation.

Worse, the company was unable to implement effective remote support and data backups due to the limited bandwidth. And while voice-over-IP would save thousands of dollars each year on inter-office calls, the necessary network infrastructure just wasn't there. Finally business continuity – and in particular, how to manage a disaster in the head office server room – was a serious concern.

The Internode Solution

Internode's approach was to review the entire Information and Communications Technology requirements of the business – including both today's and tomorrow's requirements. Key recommendations included :

Upgrading to a Private IP network

The diverse range of applications on the network – and those planned for the future – demand different treatment by the network, and this requires the intelligence of Internode Business Connect.

For example voice-over-IP and thin client are low bandwidth, but very sensitive to delays – they need top priority on the network. Fat client, and even more so data backup, require a large amount of bandwidth but are comparatively relaxed about latency. The increasingly common browser-based traffic falls between these two. In conjunction with the customer, a traffic prioritisation scheme was determined.

Increasing bandwidth

Designing for growth, the recommendation was for an Ethernet connection to the head office. A five-fold increase in head office bandwidth to 10 Mbps was the first step; however the optical fibre installed for the service would be inherently capable of continuous increases in capacity for years to come. An Extreme® ADSL2+ service was proposed for redundancy, in the event of a failure of the primary link at this business-critical site.

The major remote offices were proposed as SHDSL services, ranging between 1 and 2 Mbps. Again this delivered a huge increase over the current network bandwidth, as well as providing a basis for smooth upgrades over time.

Minor remote sites were proposed as cost-effective ADSL access services. As well as saving money (particularly for regional sites) and increasing the bandwidth, many sites could benefit from the higher speeds of Internode's own Extreme® ADSL2+ services.

Centralising the Internet

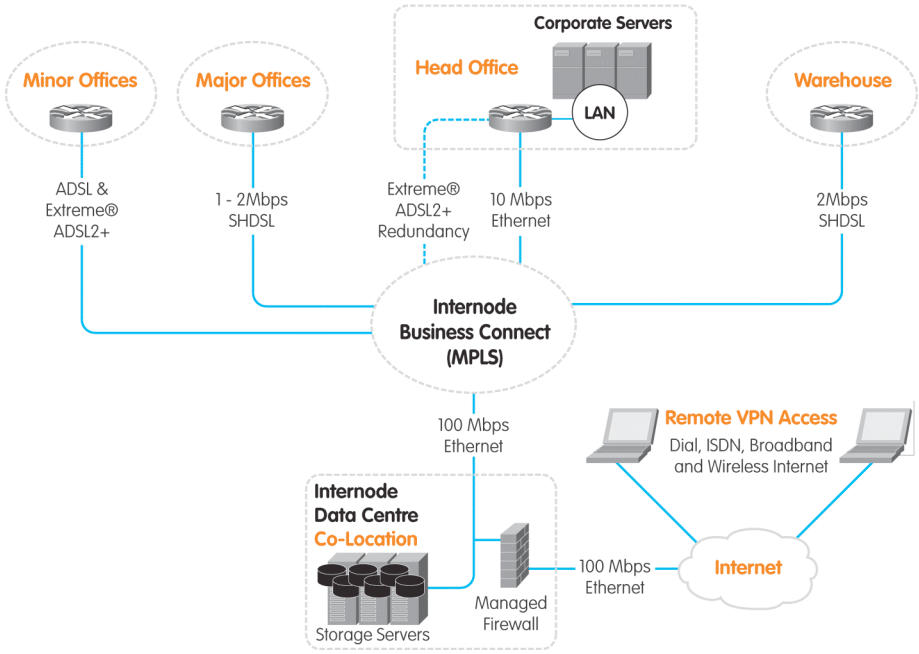
By consolidating the numerous corporate Internet connections to a single 'hosted' environment within the network core, manageability and security would be considerably enhanced. The hosted co-location environment provides 100 Mbps of Internet connectivity, eliminating the bandwidth bottleneck.

Internode also proposed supplying and managing a dedicated Cisco ASA firewall in this facility in order to reduce inhouse IT costs. As well as the enhanced security of this class-leading device, high performance Internet virtual private networks could be used to connect teleworkers, travelling staff and the planned overseas offices.

Co-locating servers

In terms of business continuity, off-site data storage was the first issue to be addressed. Our customer was already committed to a specific hardware strategy for storage, and hence a simple co-location solution enabled the data backup systems to be securely hosted offsite. Furthermore the increased bandwidth (and unlimited usage) of the Internode Business Connect solution means that data backups could now be implemented across the entire company - not just head office.

Over time, additional co-location space could be added to further strengthen the business continuity solution – such as establishing disaster recovery servers in the event of a major incident at the head office. Combining the Internet VPN capabilities of the new hosted firewall and the flexible routing of the IBC network meant that staff could continue to work, even with the head office completely 'offline'.



LAN to LAN management

The company's IT resources would be better utilised managing the specific IT requirements of the organisation, rather than maintaining networks. Internode proposed a replacement of all site routers using Cisco equipment, including ongoing management services, to deliver a complete 'LAN to LAN' managed solution.

The Result

After further refining the proposed solution through a collaborative and iterative consultation process, our customer elected to proceed with the Internode solution. Recognising our customer's preference for 'opex' rather than 'capex', a two year contract term was negotiated to eliminate any establishment charges. Careful project management and planning was undertaken to ensure a smooth cut-over from the old frame relay network.

The business benefits were immediate. Staff reported improved IT systems performance, thanks to the increased bandwidth and prioritisation. As well as the positive user feedback, a sophisticated network monitoring system now provided technical staff with online visibility of the increasingly business-critical network. Business security (and staff productivity) benefited from a centralised, secure and managed Internet connection. Leveraging the new co-location facility and reduced network management overhead, the IT department commenced implementing essential projects such as off-site data storage.

The Future

With a platform ready for business growth, the IT department now wish to explore the cost savings and advanced features of voice-over-IP with NodePhone®. The Human Resources department are discussing discounted Internode broadband services for staff as a retention and reward tool; and the Marketing department are assured of a reliable platform for the company's planned web site makeover.

Internode strives to develop long term business relationship built on trust, value, innovation and service quality. Like to know more? Contact your Internode account manager or call Internode Business Sales on 13 6633 to arrange a consultation.

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