

## JONES LANG LASALLE EXPLOITS MCI'S MANAGED MPLS-BASED IP VPN SERVICE TO GLOBAL ADVANTAGE

### EXECUTIVE SUMMARY

#### CUSTOMER NAME

- Jones Lang LaSalle

#### INDUSTRY

- Real-estate and investment management services

#### BUSINESS CHALLENGE

- Achieving a standardised global network infrastructure to:
  - enable global data sharing, including the roll out of centralised, Citrix-supported applications
  - reduce network-related costs
  - enhance client services by improving the performance, reliability and security of global extranet-based services.

#### NETWORK SOLUTION

- MCI's IP MPLS (Multi Protocol Label Switching) network provides a fully meshed data solution on a global scale. It enables the international consolidation and standardisation of systems and the future introduction of conferencing services and IP telephony.

#### BUSINESS VALUE

- By trusting MCI to manage its network Jones Lang LaSalle's internal IT and data communications staff are better able to focus on their core business and strategic projects
- By harmonising country-to-country and in-country connectivity from a single supplier, Jones Lang LaSalle has not only simplified its network, but also managed to achieve the increased bandwidth that it required, whilst cutting the data services budget within the region by 20 per cent
- The any-to-any connectivity of the MPLS infrastructure provides far greater flexibility, adaptability and scalability, helping Jones Lang LaSalle to standardise and consolidate its global network infrastructure and centralise data centres, application servers and critical business applications
- The network allows ease of integration for future IP communications and rich media conferencing options, ultimately helping Jones Lang LaSalle to move into new business areas.

#### ABSTRACT

A leading global provider of real-estate and investment-management services has replaced a diverse collection of network services with a single MPLS managed IP VPN service from MCI. The service is enabling Jones Lang LaSalle to transform the way its global infrastructure and critical IT assets are exploited and managed on an international basis. This document shows how advanced IP-based services can be used by global companies to enhance productivity, dramatically cut costs, and support new value-added services, to open up new business opportunities.

#### BUSINESS CHALLENGE

Jones Lang LaSalle is a leading global provider of real-estate and investment management services to owners, occupiers and investors.

The organisation today is the result of the merger in 1999 between Jones Lang Wootton, based primarily in Europe and the Asia Pacific region, and LaSalle, whose activities centred in North America. The merger of the two companies, and the resulting growth in both geographical coverage and the range of services, dictated a need for a fast and effective communications solution to take full advantage of the dispersed skills and knowledge of the company, with customers in more than 100 countries.

This led Jones Lang LaSalle to review its IT and communications infrastructure as part of a wider initiative to streamline the newly enlarged organisation, so operations were not duplicated and skills were more efficiently accessed across different regions.



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“Five years ago we decided that we wanted to implement higher quality data networks that would enable us to share our corporate knowledge base; including financial reporting tools and let us roll out new initiatives such as setting up Citrix networks to support the access of centralised application servers from multiple locations,” says John Hayward, Jones Lang LaSalle’s European CIO and the company’s global advisor on infrastructure.

At this point, Jones Lang LaSalle’s international network comprised a multitude of different services from numerous service providers. This resulted in disparity in the quality and speed of service provided in some countries, plus a considerable network management overhead. Network-related costs were escalating, while innovation was being hampered by the existing infrastructure’s lack of flexibility.

“The old way of doing things was to set up point-to-point or ISDN services, with each country doing its own thing,” says Hayward. “This resulted in something you can’t manage or measure well. Not only do you get bad service, it’s also very expensive.”

A further driver for change was the need to roll-out new value-added services to clients to differentiate the company from its competition. Many of its clients are large household names, with international property portfolios to which Jones Lang LaSalle provides a wide range of integrated property and portfolio management and transaction services.

Jones Lang LaSalle’s client extranet is critically important to the company, helping enable it to offer a range of unique, network-based information and application services to customers. Services include being able to share documents with clients, providing them with dynamic customer service centre information and providing access to Web-based portfolio valuation or lease administration applications.

The extranet, which operates as a secure extension of Jones Lang LaSalle’s own intranet, has existed in its current form for three years. Hayward comments: “Client extranets are extremely important to us. They are a way of winning business and creating ‘stickiness’ with the clients. The more high value information we give them, the more likely they are to stay with us.”

However, more recent refinements to the extranet, such as the roll out of new Web-based applications, were restricted by the limitations of Jones Lang LaSalle’s global network. Security was of importance.

## NETWORK SOLUTION

Jones Lang LaSalle had already begun to simplify its network infrastructure in Europe by migrating to a Frame Relay solution from MCI. But as the company’s global ambitions grew, it became clear that an alternative approach was needed. A global solution was required offering greater flexibility for future expansion and innovation, in addition to meeting the company’s current needs.

“We wanted to build a fully meshed network, so that we could consolidate our global client and corporate applications in single locations, for access anywhere in the world,” Hayward explains. “This will allow us to use fewer data centres, without restricting access. It will also simplify matters of security and compliance.”

To achieve a fully meshed infrastructure using Frame Relay would have required private virtual circuits (PVCs) to be implemented all over the world, to provide the necessary any-to-any connectivity. “With Frame Relay, it isn’t necessarily possible to set up PVCs instantly because you have an A end and a B end,” Hayward notes. “Upgrading the circuit often involves significant engineering work.”

Hayward and his team decided to replace Jones Lang LaSalle’s global network infrastructure with a managed, MPLS-based IP VPN. MPLS is a standards-based technology that inherently supports any-to-any connectivity, allowing much more flexibility when establishing wide-area networks (WANs). Importantly, it supports multiple classes of service which can be used to prioritise different applications. Assigning time-sensitive applications like voice to the highest priority while other applications, like Internet access or email to a lower priority. This feature makes it ideal for supporting converged networking – the ability to run voice and multimedia content alongside data on a single network. MCI’s Private IP product operates over its private IP network, separate from its public Internet network and so offers a level of privacy usually only associated with point-to-point connections making it perfect for VPNs.

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John Hayward  
European CIO  
Jones Lang LaSalle

Jones Lang LaSalle chose MCI to provide the new, consolidated MPLS-based IP VPN service (branded as MCI Private IP), based on a strong working relationship that had developed between the two companies over the last five years. And it used independent benchmarking to confirm that it was getting the best technology at the best price from its existing provider.

Jones Lang LaSalle's relationship with MCI began with point-to-point connectivity in the Netherlands, and grew to encompass the Europe-wide Frame Relay network which was connected into Jones Lang LaSalle's London offices in 1999. Now, 26 of Jones Lang LaSalle's corporate offices across Europe (95 per cent) have been upgraded to MCI Private IP.

The MCI Private IP MPLS network is powered by Cisco equipment for end-to-end performance management and maximum availability and is a Cisco Powered Network designated service. MCI Private IP offers full inter-working with Frame Relay and ATM, enabling customers to evolve each part of their network as needed.

MCI Private IP boasts three main advantages over other types of WANs: enhanced versatility, simplicity and privacy. Its versatility allows organisations to set up a network that is defined by the way they work, rather than by which sites need to be connected together. It also achieves this more simply than other technologies.

"With an MPLS IP network, you have much more flexibility, so meshing is not an issue because it supports any-to-any connectivity dynamically," Hayward explains. "The only issues you have to worry about are the port speed to the building, and the prioritisation of the network traffic. If you've got a good service level agreement in place, you can expand the network's bandwidth overnight. What's more, with a MCI Private IP network you're not sharing that bandwidth with anyone else."

The migration to MPLS was extremely straightforward for Jones Lang LaSalle where Frame Relay connections were already in place. The cost of replacing the existing mixed global infrastructure was absorbed by substantial cost savings associated with having a simplified, single network which is much easier to manage: "The bulk of the migration took place in just six months, simultaneously doubling bandwidth and cutting 20 per cent on our total networking costs." Hayward says.

## MPLS IS THE FOUNDATION OF MCI'S NEXT GENERATION SERVICES

MCI's flagship Private IP service is based entirely on Cisco Systems'® 10000 Edge Service Router (ESR), which is ideally suited for IP networks running MPLS.

"This allows us to support customer access speeds of 622 Mbps as standard," notes Tom Bals, Director, Product Management, IP VPN at MCI. "It means all the switches in the network are capable of delivering the same performance. We are 83 per cent of the way towards providing a consistent service on a global scale and have reached this goal by 2004."

The Private IP network has been a huge investment for MCI, reflecting the strategic importance of the MPLS-based service to the company and its customers now that application-level convergence is becoming more ubiquitous. He says: "The Private IP service has been designated as MCI's main delivery mechanism for wide-area networking. So, while we offer multiple WAN services – ATM, Frame Relay and IPSec based – this recent expansion and investment in the latest technology demonstrates that our Private IP service is our core vehicle for VPN."

**"Cisco is a brand that is trusted and recognised in the market, and the global distribution of its support operation matches our own global presence."**

**Tom Bals**  
Director, Product Management, IP VPN  
MCI

The fact that the network is based on end-to-end Cisco technology is paramount, he notes. "My concern is not just for the quality of the technology, but also includes commercial and support considerations. Cisco is a brand that's trusted and recognised in the market, and the global distribution of its support operation matches our own global presence, with local repair and maintenance capabilities in all of the areas that we serve.

“The reliability of Cisco equipment is extremely high. We’ve been using Cisco customer premises equipment (CPE) for managed services for more than 10 years and it is the most reliable and robust network product we have. All of this combines to ensure Cisco provides us with an excellent high Mean Time To Repair (MTTR) rating.”

MCI’s relationship with Cisco was a very important factor in Jones Lang LaSalle’s selection of MCI as its service provider, as Jones Lang LaSalle is committed to the Cisco brand right across its data networking activities.

“As a tier-1 player ourselves, we wanted to deal only with tier-1 providers. That’s why we chose MCI, and that’s why we rely so heavily on Cisco equipment,” Hayward says. “We choose to use Cisco in all our larger corporate offices as well because of the comfort that comes from using a trusted, reliable brand. We’re not just using their technology for edge routers into the managed network, but also for the core switches within our larger offices. It is part of our strategy to migrate to more flexible networking and the Cisco 7200 Router gives us the opportunity to implement IP voice and a host of other enhancements that are anticipated for the future.”

The bulk of the migration took place within a six month period. Hayward attributes this to the flexibility and adaptability of MCI’s account team: “They took a truly global view, seeing beyond their countries’ individual balance sheets, passing work between Chicago, London and Amsterdam seemingly easily, with each location playing to its competences and providing solid local support that is also global in nature,” says Hayward.

MCI’s collaboration with Cisco was seamless too: “We don’t see where Cisco and MCI begin and end, which is how it should be. Having partners of this calibre makes our job easier, and means we can focus on higher value projects, such as our strategy for simplifying and centralising our resources,” Hayward comments.

Because MCI is managing the VPN on Jones Lang LaSalle’s behalf, and because of the new ease with which the overall infrastructure can now be administered, a huge burden has been lifted from Jones Lang LaSalle’s IT team. Hayward notes; “I now have one employee looking after all our data networking management in Europe, who is our interface to MCI. He oversees 4,500 staff. That’s hugely efficient and reliable compared to the 10 people who were previously charged with running the network.”

## BUSINESS BENEFIT

Jones Lang LaSalle is now well on its way towards achieving its goal of consolidating its resources and providing more flexible access to centralised data and applications.

Previously, each country operation had its own data centre, resulting in vast numbers of application servers, all managed separately. “Now we are consolidating these activities into three regional hubs in Sydney, London and Chicago, or if it’s a global application, into a single hub,” Hayward says.

The first application to be managed from a single facility – in Chicago – is Jones Lang LaSalle’s knowledge management and intranet application, and the associated client extranet on which Jones Lang LaSalle is now placing all its new Web-based applications. In the future, applications such as Hyperion and Peoplesoft could also be managed from a single data centre. “We can now roll-out these applications to multiple countries from a single point because we have the infrastructure to do it,” Hayward explains.

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**John Hayward**  
European CIO  
and global advisor on infrastructure  
Jones Lang LaSalle

As critical applications are distributed over the network from central servers, the network’s quality of service (QoS) capabilities will be paramount. “Since we don’t yet carry voice on our networks, we don’t have to worry too much about the highest levels of QoS”, says Hayward. “But we absolutely do need traffic prioritisation because some of our applications are very latency-sensitive and we want to give them the maximum speed”.

These include Jones Lang LaSalle's Web-based core real estate application in Germany, and the delivery of reliable email to Hungary, historically a difficult country to communicate with quickly and efficiently. Jones Lang LaSalle also needed to provide fast network capabilities to all its Citrix services. "This is very important to us – Citrix provides a means of centralising legacy systems, to be accessed as browser-like clients, instead of having to distribute client software onto all our laptops and PCs." Hayward says.

Many of Jones Lang LaSalle's employees travel extensively, enabling them to be productive where the client needs them.

"We need to provide them with the same desktop standards so that they have as an identical experience regardless of where they are," Hayward explains. "This means that we need to have a consistent security baseline, the same basic infrastructure and we need to use the same protocols."

**"Cisco is the only provider that offered the functionality for tomorrow in today's products."**

John Hayward  
European CIO  
Jones Lang LaSalle

"At the moment a lot of people have got broadband at home, but we would not let them connect through our corporate network because it is insecure. With MCI's Access Manager on their laptops, they can connect to our network as if they were working in the office. We are about to launch this capability to 50 users in the next few weeks, expanding to 700 by the end of 2004. We plan to scale this quickly because it's so good.

"Security and compliance are simpler when you have fewer application servers and when you consolidate them in fewer locations," he adds. "Now we are on that journey; without the MPLS network we could not do it."

## NEXT STEPS

Travelling workers will have an even greater degree of flexibility once a consistent wireless capability has been added to the new infrastructure.

"Our goal is achieving more and more flexibility, and more and more integration with wireless networking, particularly IP hotspots," Hayward says. "That's the next big thing for us, if it can be done while keeping costs under control."

IP telephony and future converged applications are a further consideration. Hayward believes that having a single network is a major advantage of the MCI MPLS solution and the Cisco technology on which it is based. "Cisco is the only provider that offered the functionality for tomorrow in today's products," Hayward notes, adding that Jones Lang LaSalle may begin taking advantage of IP telephony if it expands or moves into new premises, or if new business opportunities – such as a facilities management for its clients – call for the technology.

"With IP telephony, we could add, move and remove staff from a client's telephone network and perform other maintenance remotely."

## FOR MORE INFORMATION

Cisco has awarded the Cisco Powered Network designation to a select group of service providers worldwide that are offering customers reliable, proven, cost-efficient technology and solutions.



Service providers whose services have earned the Cisco Powered Network designation are committed to deploying Cisco products and solutions end-to-end in their networks and to meeting high standards of operational excellence and customer service and support.

For further information about the Cisco Powered Network programme visit [www.cisco.com/cpn](http://www.cisco.com/cpn)

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