Migration from ISDN to SIP cuts risk, boosts performance and halves costs

The Global move to SIP

Businesses across the world are implementing SIP. For many, the move is an essential step towards deploying modern SIP-enabled cloud communications and saving costs.

Aside from the benefits, the move to SIP has taken on a more urgent, obligatory requirement since BT announced that it is phasing out ISDN, starting with a cease in supply from 2020 and migrating fully to SIP and IP infrastructure by 2025.

Jones Lang LaSalle (JLL) is a business with a history of responding decisively to changing business conditions. Faced with the deadlines imposed by SIP, the JLL management team decided they could not delay further and commenced plans to withdraw ISDN services from more than 60 offices across the UK and Europe.

Jones Lang LaSalle

JLL is a world leader in real estate services, building and investing in a variety of assets including industrial, commercial, retail, residential and hotel real estate.

- Revenues: $16.3 billion
- Workforce: 82,000
- Global offices: 300, across 80 countries
- Property managed: 4.6 billion square feet
- Leasing transactions: 33,700, totalling 784 million square feet

Taking the first step

Taking into account the scale of the project and the risks involved, JLL called on the experience of Kerv Collaborate to provide project planning consultancy, a scope of works and a requirements definition across business and technical operations. This initial 'discovery' phase of the project would serve as the basis for a tender to select a suitable service provider for implementation of the SIP installation work.

Kerv Collaborate consultants identified existing Avaya telephony infrastructure operating across a Verizon MPLS core network between data centres in Frankfurt and Slough. Ninety-five percent of calls were carried across ISDN connections. Having established that the core was SIP-ready, Kerv Collaborate saw that deployment of SIP trunks across the existing core network would offer the simplest and most economical solution, bringing with it a transformation in security, quality of service and call expenditure.

Kerv Collaborate's assessment of inventory, network capacity, costs and existing contractual commitments included detailed analytics and sometimes complex appraisal of technical issues. The results exposed potential annual savings in the order of six figures, presenting JLL management with a relatively simple decision to proceed with implementation.

Finding a trusted partner

The initial discovery phase of the project equipped JLL with the requirements profile necessary to choose the best equipped service provider for the job of implementation. With an intimate knowledge of the project, and the skills to put it into action, DoubleEdge was invited to tender alongside a short-list of multinational, big-brand carriers and communications providers.

Taking into account project management skills, knowledge and depth of technical expertise,

DoubleEdge demonstrated clear advantages, winning JLL's confidence as well as the contract.

Implementation of the project was planned using methodology tried and tested by Kerv Collaborate on many occasions. Following a sequence of design, roll-out and hand-over, the project sought to mitigate risk whilst achieving maximum return on investment and optimal SIP performance.

The project was supported by a Kerv Collaborate team comprising past employees of tier-one network carriers and international telecommunications providers. With this hands-on, 'insider' knowledge of systems and processes used by the industry, Kerv Collaborate projects benefit from uniquely close collaboration between the client and supply sides of the project, delivering rapid resolution of technical issues and acceleration of completion times.

Kerv Collaborate Project Methodology

1. Discovery Phase

A complete audit of systems, services and costs, including:

- Cost analysis, across line rentals and call expenditure
- Network utilisation, requiring analysis of network performance
- Billing information, requiring collaboration with European telecoms operators
- Systems inventory and assessment of SIP-ready infrastructure
- Business case and RoI, requiring costs for legacy and planned infrastructure investment

3. Roll-out

Implementation of services, including:
- Vendor management, site visits, lead times and resolution of technical issues
- 150 DDI Ranges, across European network providers
- Installation, surveys, new installs, legacy upgrade and rationalisation
- Cut-over management, including parallel runs
- Administration, management of orders, wayleaves, risk assessment method statements and regulatory compliance.
- Management reporting, updating on progress and completion

2. Design

Planning for optimal performance, least cost and maximum resilience, including:
- Project plan, setting out objectives, resources and timescales
- Risk mitigation plan, focusing on resilience and disaster recovery
- Project assessment, projecting performance against objectives using success criteria and test script

4. Hand-over

Plan implementation and deployment of services, including:
- Documentation provided to JLL team
- Instruction and training on systems support, compliance, procedures
- Business as usual, validating systems performance and setting up ongoing technical support

Managing multi-national deployment

Kerv Collaborate met the challenge of planning, resourcing and management of local services across Europe, working in collaboration with:

Putting plans into action

These skills were put to use early in the project, establishing full resilience at the two data centres and network POPs. Analysis of existing line utilisation identified opportunities for consolidation and rationalisation of redundant connections, prior to replacement of ISDN with SIP over 78 sites spanning 12 European countries.

With careful logistical planning of site visits, surveys and liaison with multiple carriers and vendors, Kerv Collaborate managed the installation of routing equipment, testing of services and number porting across the entire region. Throughout, project managers communicated regular progress reports back to JLL management to ensure close coordination with business activity.

Thorough testing of equipment and SIP services across the MPLs was performed to meet the specific requirements for each office in each country. Only when fully satisfied with performance, the Kerv Collaborate team proceeded to manage a phased roll-out and cut-over to live services, all planned to minimise risk and achieve a right-first-time result.

Handover of the completed project to the JLL team included provision of all documentation across all solutions including details of DDI porting and on-site equipment configuration. This would provide essential information necessary for continuity of service management by the client team. Ongoing support was set up to provide SD access, fault management, fraud activity and monthly performance reports showing network performance metrics for jitter, latency, packet loss and MOS. Billing reports continued to monitor savings being realised against the old solution and proactive reports highlighted recommendations for performance improvement.

Summary of Benefits

- First-year savings of 47% across call costs and ISDN line rentals.

- Project return on investment of 4.5 months covering all set-up fees

- Extended return on existing investment in Avaya and Verizon MPLS infrastructure

- Simpler, more responsive business continuity systems

- Improved resilience and service levels

- Infrastructure SIP-ready for approaching ISDN switch-off across Europe

- SIP-enabled infrastructure suitable for migration to cloud communications in future

Managing time and cost

The combined savings from removing ISDN line costs and rerouting of calls across the new SIP-enabled infrastructure resulted in a remarkable saving of 47% across the total region, with reductions as high as 80% in some individual European countries.

By benchmarking tariffs, cutting under-utilised services and negotiating new contracts, Kerv Collaborate has leveraged the reduction of existing costs and set out terms with carriers for continued savings in the future.

With projects of this type, it is common for technology to be the focus of attention. In reality, though, it is the administration and management of often complex peripheral issues that can incur the bulk of project time.

These tasks rely on the experience of the project team to ensure success. Order management, for example, was a detailed and critical process often governing the cost and timescales incurred by the project, as well as the quality of the product specification.

Similarly, hiring and management of local service providers, putting the right resource in the right place at the right time, was essential to system performance and achievement of deadlines.

Challenges

Frequently, the Kerv Collaborate team had to deal with local laws and regulations to make things happen.

For example, it was essential to gain the cooperation of landlords, tenants and network operators in the management of wayleaves and to check the compliance of the necessary documentation.

Similarly, it was often challenging to ensure that a network provider would carry out RAMS (Risk Assessment Method Statement) specific to a given site rather than a generic version.

Again, first-hand experience of carrier responsibilities meant that the Kerv Collaborate team could enforce network operators to be accountable for the compliance requirements of OFCOM and other Industry regulators.

66 Final Word

The migration to SIP was a critical project driven by the pending withdrawal of ISDN but also, importantly, forming part of our strategic roadmap for improved communications services in the future. We realised quickly that this Europe-wide deployment was beyond our resources and required the skills of an experienced consultant.

With Kerv Collaborate we found a team with the knowledge and experience to both plan and implement the vast number of detailed tasks involved in this project. To complete the project without a hitch and cut costs by nearly half was a remarkable achievement."
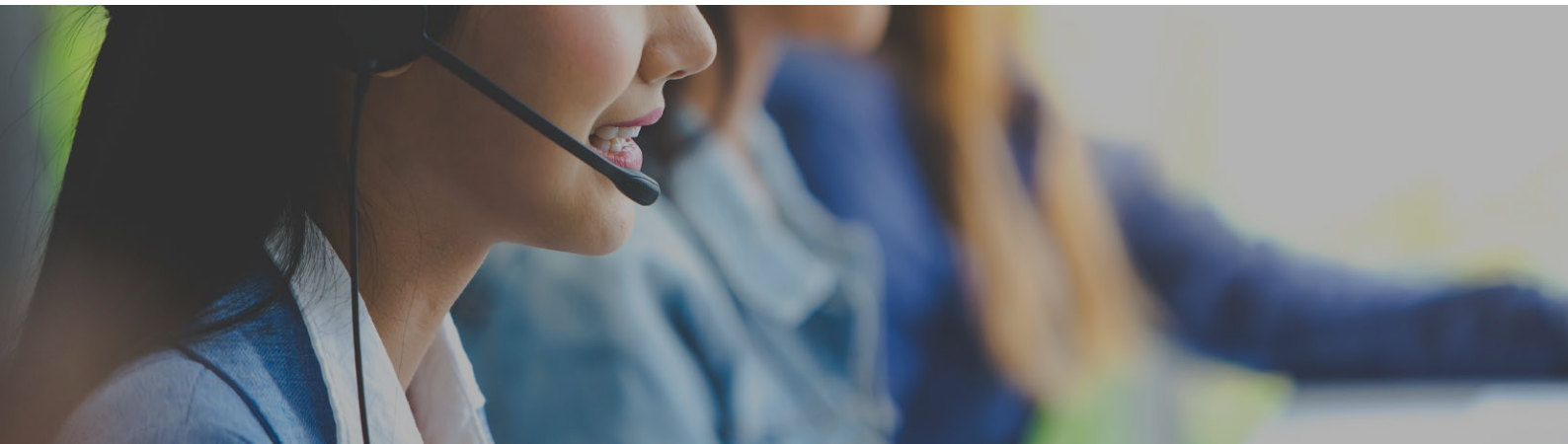
Lee Wood
CTO - EMEA Core Technology Services
Jones Laing LaSalle

Service Excellence

We believe that proactive, knowledgeable support from people who really care is at the heart of delivering performance improvement

That's the difference with Kerv Collaborate

Get in touch with us

For general enquiries please contact
marketing.collaborate@kerv.com

Kerv Group, Unit 1B, 1 Finsbury Avenue, London, EC2M 2PP

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