

P&TLuxembourg: deploying Linux as a platform for server consolidation

Goals of the Linux project

- To explore using Linux on z/VM as a platform for consolidation of Open System servers.
- To augment in-house knowledge and understanding of Linux in a VM environment.
- To create an 'on-demand' virtual server environment.
- To integrate the administration of Linux servers into the in-house Unix monitoring and administration procedures.
- To plan the potential migration of production and test servers to Linux.

Executive Summary

The post and telecommunications business in Luxembourg, P&TLuxembourg, is one of the few remaining publicly-owned communications businesses in Europe. It provides the principality with a range of services, from selling stamps on the high street to providing sophisticated mobile, Internet, voice and data communications for businesses and private consumers.

Like many modern organisations that have been through a period of rapid growth and change, P&TLuxembourg has an increasingly complex and heterogeneous IT infrastructure, which contains increasing numbers of Unix and Windows servers. This has increased pressure on finding space in the company's computer rooms as well as providing maintenance and support for a growing number of servers.

The company identified a need to simplify its infrastructure and to reduce the total cost of ownership of its servers, and considered adding

Linux virtual server support on its existing z/VM mainframe as a potential platform for consolidation. P&T has strong IBM and Unix expertise in-house, but tendered for contract support to help with installing Linux on zSeries and to improve in-house experience of working in a Linux environment. Ten companies responded to the tender. B & M was able to provide a specialist with the right skills who was available at the time to suit P&T's needs. B & M was also chosen as it was able to meet the criteria of price set out in the tender process and to provide relevant testimonials to demonstrate its capability to deliver work of this type.

Meeting the needs of the business

P&TLuxembourg has a wide range of business applications, including web-based and on-line, many of which run on dedicated servers. As the range of applications has grown, so too has the number of servers needed to support them.

When the company upgraded its IBM mainframe, it decided to purchase extra functionality to support Linux on zSeries virtual servers, to provide a potential platform for consolidating its server network. According to the P&T's Infrastructure Manager, Les Wilson, the key goal was to develop a way in which Linux servers could be managed in the same way as the existing IBM, HP, Siemens and Sun Unix servers. As he explained, "We want to use common techniques to manage all our hardware that iron out the differences between the different platforms".

Technical environment

At the start of the consolidation review, P&TLuxembourg had more than 100 different servers of which there were approximately 40 Unix, 50 Windows and 8 Novell servers. Of these, around 70 were at the company's principal site, while the remainder were located away from the main IT function. The business also has AS/400 servers, which are capable of supporting Linux virtual servers.



The best practice for Best Practice

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B & M's brief

P&TLuxembourg's original tender was for specialist support to help it examine existing systems software and third party products, including a WebSphere Application Server, to assess and plan how these products would work best under Linux on z/VM. The company then required the specialist to help the in-house IT department install and configure Linux on its z/800 mainframe and to install the WebSphere Application Server.

Once these tasks were completed, on time and on budget, P&TLuxembourg asked B & M to add a final phase. This included creating the required prototype Linux on zSeries installation, defining standards and providing documentation for z/Server management, enabling skills and knowledge to be transferred to the in-house team.

B & M's recommendations

B & M was able to supply a multi-lingual senior systems specialist with 24 years IT experience who had the right skills to support P&T Luxembourg's Linux implementation. The specialist's skills included extensive knowledge and experience of installing and supporting z/VM and Linux from a variety of vendors (SuSe, Debian and Redhat). He was also able to bring expertise at supporting, installing and troubleshooting z/VM, installing and customising Linux and image cloning and propagation for Linux on zSeries.

According to Les Wilson, "We have rules about awarding tenders based on the best price and availability. B & M was the company that responded with the best combination of availability, price and skills".

The result: business benefit

Following the project, P&TLuxembourg has been able to begin to rationalise its servers and create a platform that will enable it to consolidate its server environment further. The installation of Linux on z/VM will enable the company to migrate some of its client servers onto dedicated, logical partitions on a single machine, reducing cost and freeing up valuable floor space.

P&TLuxembourg now has the flexibility to create test servers for new applications more easily and swiftly through the use of virtual servers, giving it

the ability to develop and test most applications on the same platform. The organisation has also been able to build on the skills transfer from the specialist provided by B & M and develop common methodologies for managing equipment from different suppliers.

As Les Wilson concluded, "The result is that we had a base on which we could expand using our own Unix Administrators. We have already eliminated some older Unix servers and have a better production environment with more standardised infrastructure".

About P&TLuxembourg



With its 2,700 employees, P&TLuxembourg is the leading provider of postal and telecommunication services in Luxembourg. The public service company also operates financial services. Its lean and easily manageable size allows P&T to serve private customers as well as business customers including international banks, insurance companies and important European institutions with high-quality solutions. For international express mail services, P&T has a partnership with TNT. In the telecommunications area, P&TLuxembourg runs both fixed and mobile networks providing a full range of voice and data services (including 3G as well as services designed in partnership with Vodafone).

Additional information about P&TLuxembourg can be found at www.ept.lu.

About B & M

B & M has specialised in matching customers' needs and specialists' skills for over twelve years. We focus exclusively on providing consultancy and technical support for z/OS and Unix environments, including third-party systems software, open systems and networking connectivity. We add real value for HR and IT professionals by taking the time to understand their needs and applying best practice methods to deliver results.

For further information

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