

Korea Exchange Bank's London Office improves disaster readiness

With a Managed Resiliency solution from IBM Global Technology Services

Overview

Business challenge

KEB's London Office wanted to improve the RTO [recovery time objective] and RPO [recovery point objective] for key systems running on both IBM AIX and Microsoft Windows. The existing tape backup required 20 hours for recovery, and the restored data could be as much as 84 hours old.

Solution

IBM Global Technology Services designed and built a virtualised recovery environment in one of its UK data centres, enabling the rapid recovery of replicated systems and an easy return to the original production environment when the disaster scenario is over.

Korea Exchange Bank (KEB) is Korea's largest foreign exchange bank and the fifth largest bank in Korea by assets. With a network of more than 300 domestic branches, and representation in a further 46 offices in 21 countries, KEB offers both corporate and personal banking to global clients.

KEB's London office acts both as the UK branch operation and as a regional hub, supporting branches and subsidiary companies in Bahrain, France, Germany and the Netherlands. The London office runs the transactional banking and payments systems for the region on an IBM Power Systems server, and is responsible for ensuring that these business-critical systems can be recovered rapidly in the event of a disaster. The European operations also rely on some payments services running in the bank's Korean headquarters, so the IT staff in London work in a truly global environment.

"Planning and testing disaster recovery is particularly challenging when you're dealing with business-critical systems across multiple time zones," says Frances Butcher, Systems Analyst, Regional Operations for Europe at KEB. "The window for taking systems offline is very limited, and that puts pressure on backup and recovery tasks. Realising that we had outgrown our existing tape-based backup solution, we looked for a cost-effective way to improve both our RTO and our RPO. We also wanted to make it easier to prove to our regulators that we have effective business continuity plans in place."

Cost-effective option

The existing business continuity arrangements at KEB's London Office depended on the transfer of backup tapes to an offsite location where entire systems could be recovered on rented servers. Recovering from tape is a time-consuming task, and the RTO was approximately 20 hours. As the tapes of each overnight backup were not delivered to the backup site until 11:00 the following morning, the RPO was always at least 12 hours, and could be as much as 84 hours, because backups were not run over weekends.



Business Benefits

- IBM solution enables seamless point-in-time recovery of multi-platform systems
 - Time to recover has been cut from 20 hours to less than four hours
 - Recovery point has been cut from more than 80 hours to just one second
-

“With the IBM replication solution, we have a typical RPO of one second, so a disaster scenario would have very limited impact on our operations.”

— Frances Butcher, Systems Analyst, Regional Operations for Europe at KEB

“There was no question that we had effective business continuity plans in place—we take our regulatory requirements very seriously, and we had made provision to use paper records during a disaster scenario,” says Frances Butcher. “However, the cost and time involved in rekeying transactions after a disaster would have been significant, so we set out to significantly reduce RTO and RPO.”

KEB’s London Office invited several vendors to propose solutions, and decided to award a new contract to IBM Global Technology Services. “IBM ran a workshop to gather our requirements, then proposed a Managed Resiliency Services solution that met all our objectives in a cost-effective contract,” says Frances Butcher. “The other vendors simply couldn’t offer such a comprehensive and flexible solution.”

Fast recovery of current data

Under the new Managed Resiliency Services contract, KEB’s London Office replicates its business-critical data in real time to an IBM UK recovery location, using NetApp SnapMirror software. IBM Global Technology Services monitors and helps manage the replication processes, and provides the encrypted connection for the data transfer. As an added layer of protection, KEB’s London Office continues to run its overnight backup to tape.

The production environment in the organisation’s own data centre consists of one IBM Power Systems server and two Intel processor-based servers, one from IBM and one from HP. On the backup side, IBM provides an AIX virtual server running on its own Power Systems server, plus a Microsoft Windows virtual server running on an IBM System x server.

In the event of a disaster or a DR test, IBM technicians rapidly create three larger virtual servers and restore the production systems to them. The virtual resources offer the same performance as the original physical environment at KEB’s London Office.

“With the IBM replication solution, we have a typical RPO of one second, so a disaster scenario would have very limited impact on our operations,” says Frances Butcher. “The contractual RTO is four hours, but in practice we can recover our production systems within as little as 30 minutes. So the impact of losing the production environment would typically just be a couple of hours to complete the switch-over to the backup environment.”

Solution Components

Services

- IBM Global Technology Services
-

“The IBM solution gives us the best of both worlds: the benefits of a fully mirrored system at the lower cost of a replicated solution.”

— Frances Butcher, Systems Analyst, Regional Operations for Europe at KEB

There and back again

The IBM Managed Resiliency Services solution provides a consistent point-in-time recovery capability for multiple business-critical systems running on two different operating systems and on two different hardware architectures. It also automatically handles not only the switch-over to virtual servers, but also the switch-back to the original physical production servers (or new ones) once the disaster scenario is over.

“A major benefit of the IBM solution is that it allows us to ‘flip-flop’ easily,” says Frances Butcher. “With a conventional replicated solution, it is usually difficult and time-consuming to bring production back in-house after you’ve been using the backup environment. The IBM solution gives us the best of both worlds: the benefits of a fully mirrored system at the lower cost of a replicated solution. When we need to ‘flop back’ to the original hardware, we bring with us all the transactions that have taken place on the backup environment.”

With IBM monitoring its data replication processes, KEB’s London Office is confident that the new solution provides optimal protection against disaster for business-critical systems. The company can also more easily demonstrate that it is meeting regulatory requirements for business continuity. “We can now easily prove our ability to recover key systems very rapidly and with no loss of data,” says Frances Butcher. “Throughout the creation of the solution, and now in day-to-day operations, we have always been impressed by both the professionalism and the approachability of IBM personnel. Their willingness to support our business continuity efforts adds to our confidence in using the IBM solution.”

For more information

To learn more about IBM Global Technology Services, contact your IBM sales representative or visit: ibm.com/services/uk

© Copyright IBM Corporation 2011

IBM United Kingdom Limited
PO Box 41
North Harbour
Portsmouth
Hampshire
PO6 3AU

IBM Ireland Limited
Oldbrook House
24-32 Pembroke Road
Dublin 4
Tel: 1890 200 392
ibm.com/services/ie

Produced in the United Kingdom
June 2011
All Rights Reserved.

IBM, the IBM logo, ibm.com, AIX, Power Systems and System x are trademarks of International Business Machines Corporation, registered in many jurisdictions worldwide. A current list of other IBM trademarks is available on the Web at "Copyright and trademark information" at ibm.com/legal/copytrade.shtml.

Other company, product or service names may be trademarks, or service marks of others.

References in this publication to IBM products, programs or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program or service is not intended to imply that only IBM's product, program or service may be used. Any functionally equivalent product, program or service may be used instead.

All customer examples cited represent how some customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual customer configurations and conditions.

IBM hardware products are manufactured from new parts, or new and used parts. In some cases, the hardware product may not be new and may have been previously installed. Regardless, IBM warranty terms apply.

This publication is for general guidance only.

Photographs may show design models.



Please Recycle