

Customer Success Story

ROYAL BOROUGH OF KENSINGTON & CHELSEA

The Royal Borough of Kensington and Chelsea uses Virtustream to optimise virtualisation within their server environment.

The Borough:

The Royal Borough of Kensington & Chelsea (RBKC) is the most densely populated local authority borough within the UK. Located to the west of Central London, the Borough has a population of just under 200,000 spread across 4.7 square miles.

One of the reasons that it is so densely populated is that the Borough is judged as being 'highly desirable' to live in. The Borough not only contains some of London's most exclusive residential districts, it is London's cultural centre for major museums, embassies and department stores like Harrods. It's a Borough of distinct varied vibrant contrasts;- marvelous parks, gardens, markets and some of London's most expensive real estate intertwining with dense areas of social housing (one in four of the Borough's homes are classified as social housing).

Satisfaction living within the Borough is high – 91% of residents classify that they like living there – and the council has achieved the highest rating in the Comprehensive Performance Assessment for six years running, a test that determines and reflects on how well a council is run.

Supporting the Borough's population are over 4000 staff, making it the largest employer in the area. Maintaining these staff and providing the supporting infrastructure, is an IT Department of 90. Barry Goodall, Support Manager, Information Systems Division (ISD), has responsibility for all aspects of the Borough's server and storage management.

About the Infrastructure:

No strangers to virtualisation or the concepts that run behind it, the IT Team at RBKC adopted server virtualisation in 2006 using VMware's ESX 2.5 solution. As active members of VMware's Public Sector User Group, the team felt they were well informed, up to date and to a large degree self sufficient on virtualisation technologies; frequently often more informed than their reseller partners. In 2007 to complement the existing server virtualisation solution, they decided to implement a supporting SAN to robustly support the server applications and to virtualise the storage; pooling storage resources and simplifying management. In addition Barry and Martin Smith, Enterprise Systems Consultant, ISD wanted independent, professional consultancy advice and best practice on how to migrate their current four VMware ESX hosts running on Server v2.5 platform to v3.0 and apply throughout the Borough's 325 servers (100 virtualised and 225 physical). They turned, through recommendation, to Virtustream to optimise their virtual estate.

Virtustream response:

Virtustream assigned their key VMware advisory consultants to the challenge. Taking a high level approach, the Virtustream consultants' applied their in-depth knowledge on the latest version of ESX v3.0 and provided a full roadmap of how it could be applied to achieve the best results in RBKC's environment, including provision for virtual machine performance monitoring and recommendations for complementary backup and restore for the virtual machines.

So, acting under advice from Virtustream, rollout commenced with migration from ESX v2.5 to v 3.0 on two servers in the safety of Test & Development. What RBKC quickly

Results

- Scheduled and planned maintenance
- Assured Business Continuity
- Fully featured clustering
- Significant CO2 reduction
- Significant budgetary savings

found in this testing phase is that v3.0 when attached to a SAN, could provide the Borough with High Availability and Disaster Recovery services for both server application path and data.

Barry noted, “The combination of both VMware’s solutions and Virtustream’s ability to work with and beyond an existing infrastructure is a winning one. Even at concept stage we could see that the proposed optimised solution would ensure that our servers were always readily and robustly available. And when it came to migration, with Virtustream’s support, we had no issues migrating v3.0 onto our production servers. We also appreciated the fact that Virtustream were able offer complementary add-on solutions for consideration that could enhance future functionality even further under v3.0.”

Technical Solution:

Once assured, the rollout passed to the production environment in a clustering configuration, each cluster containing 2 live and one spare virtualised server (4 CPUs each; 64GB memory). In total, the new configuration spanned 77 production and 7 spare guests.

For storage virtualisation, the SAN is made up of EMC CX500 Clarion CLARiiON fibre and SATA disks, running Falconstor’s Ipstor IPStor as the software storage virtualisation solution. 10TB has been used from a total available of 14TB.

For enhanced virtual management, VMware’s VirtualCenter 2.0 has been implemented to provide virtual machine performance monitoring and reports back to the RBKC team on the amount of CPU, disk I/O and memory being utilised by the virtual machines.

Martin commented, “What we have been provided through the Virtustream’s consultancy and VMware products is a solution that provides simplified management, flexible and agile use of resources and a higher utilisation of capacity.”

Today, the benefits are so great under the new environment that every time a new server is required, the preference now is always to virtualise.

Main Benefits:

The benefits are easily summarised by the RBKC team:

- Scheduled and planned maintenance that doesn’t last all weekend
- Business continuity assured in one ‘live’ server farm
- A VMware clustering solution that works much better than comparable products in the marketplace
- Significant CO² savings in energy from power, disk cooling and space utilisation – an important endorsement in the UK’s most densely populated Borough that values and strives towards a greener community
- Significant budgetary savings in the cost of new hardware acquisitions – and these cost savings reflect directly in the council tax payers pocket

And when it comes to their experience with Virtustream, Barry concluded, “For the benefit of the Borough, we now boast a truly versatile, robust server and storage virtualised environment which has been advised, implemented and supported in a first class manner from Virtustream.”

For more information on how VIIS® and VEDI™ strategy formalisation services can transform your organisation’s infrastructure

Contact:

Virtustream

t: 0870 120 5506

f: 0870 120 5507

info@virtustream.com

www.virtustream.com

For more information:

Royal Borough of Kensington
& Chelsea

www.rbkc.gov.uk

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