≈ **StarWind**

StarWind Becomes the Heart of Cloud Service Infrastructure for its Reliability, Availability, and Resilience

❝ Because of my investment in StarWind's fantastic HA solution and Microsoft Hyper-V clustering & Live Migration, it was possible to physically move my servers from one datacenter to another without any interruption of service and without risking data. **❞**

Aitor Ibarra, Director, VMhotel

About the Company

Vmhotel has been involved with Internet-related businesses since 2007. The company's network is located in London, providing high bandwidth, low latency to the city, in Europe, and worldwide. Their fully redundant virtualization platform, based on Microsoft's Hyper-V, provides customers with the ultimate flexibility in virtual machine specification and high speed storage.

www.vmhotel.co.uk

Industry

Cloud service provider

Environment

Microsoft Hyper-V

Challenge

- Necessity in a software-based virtual SAN to enable server clustering and Live Migration
- Ability to keep the storage infrastructure constantly running without interruption

Solution

StarWind Virtual SAN

Results

- Deployment of virtual SAN to enable advanced Hyper-V features: server clustering and Live Migration
- Possibility to upgrade software or hardware without any downtime

CHALLENGE

"I found that even small companies really need enterprise level solutions. When virtualization started to take off I saw an opportunity to provide enterprise level resiliency and functionality to small businesses. This all started in 2006-2007. I started by using Microsoft Virtual Server and then migrated to Hyper-V.

With Hyper-V came the possibility of clustering for redundancy, and to enable that I needed a SAN. Having had plenty of experience with traditional Fibre Channel SAN suppliers, I wanted to use a software-based iSCSI solution," said Aitor Ibarra, Director at Vmhotel, Ltd.

SOLUTION

Initially, the company needed an affordable iSCSI target that ran on Windows and was supported for Microsoft Failover Clustering, which required specific iSCSI features. *"I think at the time only the Microsoft/StringBeans iSCSI target and StarWind actually fit the bill, but the Microsoft target had licensing restrictions which meant I couldn't use it. StarWind had superior performance, and active support and development, which was clear from checking the support forums,"* shared Aitor Ibarra.

"My customers stay with me because I give them a reliable service, and I take away headaches like managing relationships with datacenters. Because of my investment in the StarWind fantastic HA solution and Microsoft Hyper-V clustering & Live Migration, it was possible to physically move my servers from one datacenter to another without any interruption of service and without risking data," continued Aitor.

At Vmhotel they have been using StarWind since 2008 as a primary storage and for local backups (on different sets of drives). Aitor said, *"…StarWind provides the storage for all my customer virtual machines and most of my internal ones and, therefore, it is very much at the heart of my infrastructure."*

RESULTS

Deployment of highly available virtual SAN to enable server clustering and live Migration

"Without a doubt, the high availability features are the most important for me. However, it goes much further than that. Fundamentally, because StarWind is software, it frees me to use the best hardware available without having to pay a "storage vendor tax". I can take full advantage of ever improving CPU, network, RAID controller, and drive performance," explained Aitor.

Ability to keep the storage infrastructure constantly running

"StarWind runs on top of Windows, so it can take advantage of all the hardware that Windows supports. And if you are running StarWind as an HA configuration, you can change that hardware without any interruption of service. You take one HA node down, while the SAN is still running on the other node, and all the virtual machines are still OK. After the hardware upgrade, you need to bring the server back online and then StarWind will resynchronize the SAN. Then, the process should be repeated with the other server. The result is zero downtime for any VM.

You can do similar tricks; for instance, change the RAID level of a volume while keeping it online, even if the underlying RAID card doesn't support RAID level migration. You can also upgrade the CPU or RAM or the drives. And with StarWind running in a VM, it is possible to upgrade the operating system from Windows 2008 R2 to Windows 2012 - all without an interruption of service. I think this level of operational flexibility is essential to a cloud provider," summed up Aitor.

To learn more, visit **www.starwind.com**