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Creating a High Availability Shared Storage in the Hyper-V Virtual Environment

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Vyatcheslav Potekin, IT Director, Medved Holding Group

About the Company

Founded in 1992, Medved Holding is one of the largest authorized Automobile Dealerships in Russia selling wide range of new vehicles such as Mitsubishi, Hyundai, Peugeot, Skoda, Volkswagen, BMW and MINI. The company also provides all kinds of post-sale services and technical maintenance for the cars it retails. Another direction of the holding's activities is retail of accumulators of such well-known brands as AkTex, VARTA, BOSH, ISTA. The company owns the Russian largest network of accumulator centers Medved. Today Medved Holding is one of the biggest players on the Russian auto market. The company enjoys the highest trust of its customers and continues strengthening its positions for further development.

www.medved-holding.com

Industry

Automobile Dealership and Car Retail on the Russian Market

Environment

Hyper-V virtual environment

CHALLENGE

Our business is booming, company staff is nearly doubling every year resulting more and more e-mails and on-line documents that require storage. Our remote offices opened overseas result no more maintenance and backup windows at night.

One day we realized that we couldn't afford to run entirely physical company IT infrastructure anymore because of constantly increasing amount of servers and unguaranteed uptime resulting in the lost deals. We needed to completely rebuild our whole company infrastructure.

There was the necessity to virtualize our IT infrastructure. We decided to use Microsoft Hyper-V for virtualization and suddenly found out that in oder to use all benefits of this technology we required something we hadn't run yet and had no experience to deal with before – Storage Area Network.

SOLUTION

The solution we chose was **StarWind Virtual SAN**. First minutes of running this software revealed one of its major benefits: it installed not inside virtual machine under control of the guest operating system but on top of Hyper-V itself in so-called "parent partition" where primary Windows operating environment executes. This meant we didn't need to buy additional servers and extra Windows licenses and could create our shared storage using the existing resources.

With **StarWind Virtual SAN** we managed to build highly available SAN space. The storage we got provides great stability and shows outstanding performance. It supports active-active High Availability, makes our storage fully redundant, and guarantees zero downtime of virtual servers.

With **StarWind Virtual SAN** totally supporting Hyper-V we completed our virtualization project successfully and turned the whole company IT infrastructure to fully high available. We did not invest any single dollar into extra operating system licenses or additional hardware. On the contrary, we managed to reduce amount of servers nearly in a half! The only thing that required the money investment was **StarWind Virtual SAN** software itself. But with extremely reasonable pricing per Hyper-V host and a huge volume discount it was probably the most usable and valuable software we had ever purchased.

Challenge

To create a High Availability shared storage supporting Hyper-V virtual environment

Solution

StarWind Virtual SAN

Results

- Cost-effective SAN for Hyper-V
- Reduction of hardware resources
- Highly available and easy-to-use shared storage
- 44% in savings!

RESULTS

Cost savings

StarWind Virtual SAN impressed us by its innovative approach to HA clustering. Since this software is designed for Windows-based environments and runs on top of hypervisor on the same server, we needed only two cluster nodes to create fully high available storage cluster. Such configuration didn't require additional servers for storage.

We estimated that if we had applied the traditional SAN architecture (using dedicated SAN servers), we would have used at least two additional hardware boxes. Evidently, more hardware would have added costs and complexity to our IT environment.

We are at the initial stage of our virtualization project and our first deployment consists of 3 Hyper-V hosts. Even with this small deployment we were able to achieve considerable savings of $8,565 or 44% on the hardware alone! All in all, building of HA storage cluster cost us 19 650 (hardware and software) instead of 39 300 that would have been required with one of the traditional SAN solutions.)

High level of resource utilization

With **StarWind Virtual SAN** operating we left behind poor resource utilization and cluster nodes standing in the shadow. Using active-active scenario we forgot about the problems related to the unguaranteed cluster node switch time. **StarWind Virtual SAN** guarantees that our business will be up and running even in case of a failure.

Reliability and performance

The functionality provided by **StarWind Virtual SAN** for Hyper-V allowed us to create the Disaster Recovery Plan and reliably protect our data in case of sudden failure or disaster. Our storage built in 10 Gig Ethernet provides outstanding performance that meets the requirements of our most resource-intensive applications. With StarWind we made our shared storage redundant and rock-solid.

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