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Djordje Preradovic
IT Manager
JKP Gradska Čistoća

JKP Gradska deployed a hyper-converged Fujitsu PRIMEFLEX for VMware vSAN solution to support core business functions. It provides scalability, flexibility, and simplicity.

At a glance

Country: Serbia

Industry: Public Sector

Established: 1884

Website: gradskacistoca.rs

Challenge

JKP Gradska’s legacy server and storage infrastructure was no longer supported and needed replacing. The company wanted to find a more scalable, flexible solution that would last for five years and beyond.

Solution

Working with trusted local partner, Global Vision Consulting, JKP Gradska deployed a hyper-converged FUJITSU Integrated System PRIMEFLEX for VMware vSAN solution based on four FUJITSU Server PRIMERGY CX400 units with 256GB memory, combined with five 1.2TB SAS HDD storage, and one 400GB write-intensive SAS HDD cache drive.

Benefit

- The system can easily scale to meet changing demands
- Specially configured protocols enable it to access existing storage capacity
- Management is simpler using VMware vSAN tools
- Three-fold increase in speed of core business applications such as ERP
- Smaller rack size frees up space

Customer

JKP Gradska Čistoća maintains the cleanliness of public areas in Belgrade, Serbia, removing household rubbish, bulky garbage, car wrecks, and construction shafts, as well as human waste. There are 10 Belgrade municipalities covering almost half a million households, with over 25 million people in housing and more than 13 million square meters of office space. It has 1,834 employees and 843 temporary workers who regularly clean 2,250 city streets.

Products and Services

- FUJITSU Integrated System PRIMEFLEX for VMware vSAN
- FUJITSU Server PRIMERGY CX400 with 256GB memory
- 1.2TB SAS HDD storage
- 400GB write-intensive SAS HDD cache drive

Upgrading critical IT infrastructure

JKP Gradska had an aging server-storage platform, with some components that were no longer supported. It therefore needed to find a new IT infrastructure to host its core business applications and ensure the streets of Belgrade remained spotless.

"The system was old and there was almost no support from the manufacturer. Moreover, energy costs were significant because the older generations of systems are not as efficient as the new ones," explains Djordje Preradovic, IT Manager, JKP Gradska Čistoća. "It was also difficult to keep the relatively small server room cool. The storage appliances took up more than 80 percent of the space."

JKP Gradska approached long-term local IT partner, Global Vision, for advice and evaluated the market to find the most suitable partner.

"The main criteria were cost and the guarantee period. At the proposal of Global Vision Consulting, we looked at the hyper-converged solutions of several potential suppliers. Fujitsu had a relatively good price and a company guarantee of five years for hardware, which is significantly longer than other vendors," adds Preradovic. "It was also important to us that the new solution would use smaller rack units because we have limited number of units on the racks. At the same time, the new solution needed to be capable of operating at 45°C in case the server room becomes overheated. We were not able to find another technological partner which could offer all of this."

The path to hyper-convergence

Fujitsu and Global Vision Consulting collaborated with JKP Gradska to design, configure, and install a FUJITSU Integrated System PRIMEFLEX for VMware vSAN solution based on four FUJITSU Server PRIMERGY CX400 units with 256GB memory, combined with five 1.2TB SAS HDD storage, and one 400GB write-intensive SAS HDD cache drive.

The FUJITSU Server PRIMERGY CX400 is a modular enclosure for the Fujitsu scale-out ecosystem that combines the density and efficiency of blade-like servers with the simplicity and cost benefits of rack-based systems. This helps JKP Gradska provide a scalable IT infrastructure, enabling flexible, fast responses to rapidly changing IT demands.

"The new arrangement is designed as a hyper-converged infrastructure with the ability to include old storage appliances. It is actually a modification of the standard PRIMEFLEX for VMware vSAN reference architecture, so that instead of standard ethernet adapters, CNA adapters that also support FCOE protocol, are configured," says Preradovic.

"Therefore, we have achieved the optimal means for using new and existing resources, while renewing the servers and storage."

JKP Gradska and Global Vision Consulting performed the live, real-time migration of 50 virtual machines and 13TB of data over the course of five days. These core services support 500 users in 11 locations, and include Oracle database, MSSQL database, ERP system, mail server, fileserver, and Cisco CallManager.

"The migration was simple because the new servers had access to existing storage through FCOE, and since our system is virtualized, we could use VMware vMotion technology to migrate the virtual machines to the new PRIMEFLEX system quickly," continues Preradovic.

Scalable, simple, and flexible

JKP Gradska now enjoys a robust, scalable, and high-performing server-storage environment that ensures optimal uptime. The flexible, hyper-converged, customized Fujitsu PRIMEFLEX for VMware vSAN solution is the ideal fit for the company's requirements.

"The benefits include scalability, the long-lasting protection of the investment that we have made, and Fujitsu's openness to configuring the system according to our demands," comments Preradovic. "Also, simplicity – in contrast to locked-in traditional systems, in which a classic server system with traditional SAN technology is used, with the software-defined storage approach of VMware vSAN there are almost no limitations in terms of choice of hardware suppliers."

This simplicity is also seen in the ease of management – by integrating with the well-known VMware management stack, PRIMEFLEX for VMware vSAN becomes much easier to maintain.

"Maintenance is very simple, because it is enough to be familiar with VMware technology in order to manage the system," remarks Preradovic. "It is much easier to learn one technology and one interface than a mix from suppliers of various technologies."

Having previously installed Fujitsu storage solutions, this latest hyper-converged addition to the JKP Gradska estate makes Fujitsu the supplier of choice for the company.

"We have completely migrated our infrastructure to Fujitsu as the standard supplier of equipment for our company," concludes Preradovic. "It is a quick and efficient company with very experienced engineers who had answers to all our questions, as well as offering very good local support through Global Vision Consulting which has a local office open to all our problems and questions."

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