PVU Group GmbH

Migrating to integrated online solutions without interruption for thousands of web customers

Overview

The need

Online retailer PVU Group GmbH expanded and outgrew its physical location and IT systems. Could it relocate its headquarters office and transform its IT without business interruption?

The solution

PVU Group and IBM Business Partner c.a.r.u.s. Information Technology implemented a virtualized environment with IBM® Flex System® and IBM FlashSystem™ for SAP Business All-in-One for Retail.

The benefit

Saves 20 percent in energy costs, cuts cooling requirements by an additional 20 percent, improves performance by a factor of ten, increases share of virtual systems by 35 percent and simplifies IT management.

PVU Group GmbH is a medium-sized online retailer and logistics service provider based in Isernhagen, Germany. The group provides Western European fashion to a continuously growing customer base in Russia, Kazakhstan, Ukraine, Belarus, Moldova, Kyrgyzstan and Azerbaijan through a portal managed by its Katorg GmbH subsidiary.

After years of business growth, PVU Group needed to move to a larger office. However, as an online retailer, the group could not afford to be offline during the relocation.

Maxim Ignaz, Project Manager at PVU Group, explains, "Our customers live in various time zones and our portal processes 5,000 orders per day. Maximizing availability during the office move was crucial to protect our profits and keep our customers happy."

All orders and material movements are tracked on mobile devices in company warehouses and processed in real-time, giving the PVU Group around-the-clock access to up-to-date stock data and sales figures. This level of insight requires significant computing power.

In order to cope with future growth, the company decided to redesign its IT infrastructure to increase scalability, gain greater flexibility, boost operational efficiency, and improve customer service.

Today, PVU Group can dynamically optimize its resource allocations to maximize the efficiency of its IT infrastructure. "The integrated solution with complete virtualization enabled us to increase capacity utilization. Now we always have the performance we need, where we need it," says Maxim Ignaz, Project Manager, PVU Group.

Solution components

- IBM® Flex System®
- IBM Storwize® V3700
- IBM FlashSystem™ 820
- IBM System Storage® SAN Volume Controller
- SAP Business All-in-One for Retail
- SAP MaxDB
- SUSE Linux Enterprise Server
- IBM Business Partner c.a.r.u.s Information Technology GmbH Hannover

Deploying an integrated, virtualized solution

PVU Group and its strategic business partner c.a.r.u.s. Information Technology GmbH Hannover together determined that the answer was to set up an entirely new target infrastructure, and migrate the data and applications in the shortest possible time.

The team selected the SAP Business All-in-One for Retail solution, an application suite featuring integrated solutions that are easy to implement and configure, particularly when replacing legacy software.

To support the new SAP and other general business applications, PVU Group selected fully virtualized servers and storage based on IBM Flex System. The chassis comprises four IBM Flex System x240 compute nodes, powered by the highly versatile and energy efficient Intel Xeon processor E5 family, which provides excellent performance for diverse workloads. The solution provides an integrated, highly scalable platform that is simple to deploy and easy to manage, ideal for PVU Group.

“Together with c.a.r.u.s. Information Technology, we were working on a number of projects in parallel to move our IT operations to our new location,” explains Maxim Ignaz. “c.a.r.u.s. Information Technology coordinated everything – they did a great job, without their outstanding support we could not have completed the project in this short time without much interruption to the business.”

The team also implemented a high-performance storage solution with IBM System Storage® SAN Volume Controller, an IBM Storwize® V3700 Turbo with 30 TB capacity, plus an IBM FlashSystem 820 storage system with IBM MicroLatency™.

“To dynamically optimize our storage performance and make best use of the IBM FlashSystem 820, we use the IBM Easy Tier feature, which automatically moves the data used most frequently to the fastest storage, thus ensuring consistently fast response times for our SAP Business All-in-One for Retail solution,” elaborates Maxim Ignaz.

The SAP MaxDB database runs on SUSE Linux Enterprise Server virtualized by VMware, which is fully compatible with Flex System.

Optimizing IT resource usage with IBM Flex System

PVU Group implemented an integrated IBM Flex System solution with four IBM x240 compute nodes in combination with IBM System Storage SAN Volume Controller, IBM FlashSystem and IBM Storwize V3700 storage systems. The company benefits from virtualized storage and IBM MicroLatency through the IBM FlashSystem in its IBM Flex System environment. This solution architecture enables PVU Group to make best use of available compute capacities while reducing the energy costs by 20 percent.

"With IBM FlashSystem and IBM Easy Tier we boosted our data throughput by around factor ten, accelerating response times across all SAP Business All-in-One solutions including SAP ERP supporting sales and materials management processes."

— Maxim Ignaz, Project Manager, PVU Group

PVU Group also operates its Java-based sales portal as well as Citrix application virtualization services on the Flex System. The company manages all virtual machines centrally using the VMware vCenter Operations Management Suite, helping the company keep IT administration costs under control.

Rapid access to business information

Since the new architecture was introduced, response times have improved substantially.

"With IBM FlashSystem and IBM Easy Tier we boosted our data throughput by around factor ten, accelerating response times across all SAP Business All-in-One solutions including SAP ERP supporting sales and materials management processes," remarks Maxim Ignaz. "With the IBM infrastructure, we enjoy instant access to business data without the much higher costs of other in-memory solutions."

Through the infrastructure modernization project, PVU Group is saving 20 percent in energy costs, and has reduced cooling requirements by an additional 20 percent – contributing to overall savings in operational costs.

Virtualization boosts flexibility

In the past, PVU Group ran approximately 70 percent of its servers in a virtualized environment. With IBM Flex System, the company moved more systems onto the shared infrastructure and now runs 95 percent of all systems as virtual machines – a 35 percent improvement.

"When we ran dedicated servers, we were unable to share system capacities," recalls Maxim Ignaz. "With IBM Flex System and VMware we can dynamically optimize resource allocation as systems grow and make sure we always have resources where we need them most – improving performance and reducing costs."

The flexibility of a fully virtualized environment also accelerated the deployment of new systems dramatically – from hours or days to just minutes. This helps PVU Group to stay ahead of the competition and deploy new test and development systems as needed, ensuring continuous improvements of its systems and business processes.

"Together with c.a.r.u.s. Information Technology, we minimized the migration risk and completed our move to the IBM Flex System on time," concludes Maxim Ignaz. "We can now run more systems with a smaller footprint and use our computing capacities more efficiently."

For more information

To learn more about IBM solutions, contact your IBM representative or IBM Business Partner, or visit the following websites:

- **ibm.com**/flex
- **ibm.com**/storage

To learn more about products, services and solutions from c.a.r.u.s. Information Technology, please visit: www.carus-hannover.de

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