(intel)

Soaring above the competition

Lufthansa Systems optimizes IT services with Intel® Xeon® processor E5 family, improving quality while maintaining costs

Lufthansa Systems
IT that makes your life easier

"The improved memory capacity of the Intel® Xeon® processor E5 family enables us to increase the number of virtual machines per physical server from 30 to 40 while also improving performance by 35 percent."

Bardo Werum
Senior Vice President, Infrastructure
Lufthansa Systems

Company

Lufthansa Systems provides consulting and IT services for selected industries and has a leading position in the global aviation industry. A wholly-owned subsidiary of the Lufthansa Group, it offers customers a full range of IT services including consulting, development and implementation of customized industry solutions as well as the operation of applications in the company's own data centers. At its headquarters in Kelsterbach near Frankfurt am Main, Germany, Lufthansa Systems operates one of the most modern data centers in Europe.

Challenge

From this data center, Lufthansa Systems hosts a variety of applications – such as Microsoft SQL Server* and SharePoint*, Citrix Access Gateway*, Oracle Siebel CRM* and numerous industry-specific solutions – for some of the world's best-known airline and travel companies. Since many of these multi-tenant systems are business-critical – for example, running booking engines and aircraft navigation systems – Lufthansa Systems must adhere to strict service level agreements (SLAs), maintaining high standards of performance and availability.

Solution

Optimizing data center operations is of utmost importance to Lufthansa Systems and, for this reason, it was eager to evaluate the benefits of upgrading to Dell PowerEdge* blade servers running on the latest Intel® Xeon® processor E5 family. Improved memory capacity enabled it to increase the number of virtual machines (VMs) per physical server from 30 to 40 using Microsoft Hyper-V*, while also improving performance by 35 percent[1]. This enables Lufthansa Systems to make more efficient use of its hardware. Intel® Integrated I/O enabled substantial throughput gains and reduced I/O latency by 25 percent, while Intel® Virtualization Technology[2] for Connectivity (Intel® VT-c) featuring PCI-SIG Single Root I/O Virtualization (SR-IOV) improved throughput on Intel® 10GbE from 4 Gbps to 9.6 Gbps, achieving near native hardware performance for VMs. This results in more stable server performance and improved customer service. Finally, power consumption was reduced by 15 percent compared to the previous-generation Intel® Xeon® processor 5600 series through automated power management features and greater overall energy efficiency.

Benefits

Thanks to the advanced virtualization capabilities of the Intel Xeon processor E5 family, Lufthansa Systems will be able to improve the performance and quality of the IT services it offers customers while maintaining costs. System boot times for the new environment are significantly shorter despite the larger memory requirements, helping Lufthansa Systems to maintain high availability and disaster recovery standards at its data center. Ultimately, the Intel Xeon processor E5 family will enable Lufthansa Systems to more easily and cost-effectively meet customers' strict SLAs, helping it to maintain a competitive edge.
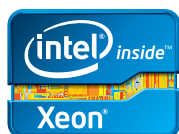
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(intel inside™ Xeon®)

[1] Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations, and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

[2] Intel® Virtualization Technology requires a computer system with an enabled Intel® processor, BIOS, and virtual machine monitor (VMM). Functionality, performance, or other benefits will vary depending on hardware and software configurations. Software applications may not be compatible with all operating systems. Consult your system manufacturer. For more information, visit http://www.intel.com/go/virtualization.

* Other names and brands may be claimed as the property of others.

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