CASE STUDY Intel® Xeon® processor 5600 series

Enterprise Server Cloud Computing Virtualization: Dynamic Resource Management



SAP* in the Cloud: Sweet Spot for Domino

In one of the largest SAP production cloud deployments¹, Domino Sugar doubles performance and reduces total cost of ownership (TCO) by up to 40 percent with Virtustream xStream* platform

A multi-billion-dollar enterprise, Domino Sugar was an early adopter of application outsourcing for its business-critical SAP* deployment. Now, the company is migrating its SAP and other essential IT infrastructure to an external, private, multi-tenanted cloud from Virtustream running on the Intel® Xeon® processor 5600 series. With the move, Domino is doubling its SAP performance and expects to improve elasticity, enable faster disaster recovery, and reduce three-year TCO by up to 40 percent.



CHALLENGES

- Commodity products, integrated operations. As a vertically integrated company, Domino drives to optimize its cane field-to-store business operations.
- Mission-critical clouds. Domino's IT leaders wanted the flexibility and cost savings
 of cloud computing but needed enterprise-class performance, reliability, and support
 to handle a sophisticated SAP deployment with over 20 TB of data and thousands of
 users in the U.S., Mexico, and Canada.

SOLUTIONS

- •Virtustream xStream* cloud platform. Virtustream is a cloud services and infrastructure solutions firm that offers a robust, consumption-based cloud platform capable of handling complex production applications. The xStream platform runs exclusively on the Intel® Xeon® processor family.
- •Intel® Xeon® processor 5680. Virtustream guarantees high CPU, I/O, and memory performance for Domino by combining Virtustream's innovations and expertise with Intel® Xeon® processors, IBM System* x3650 M3 platforms, and Intel® Virtualization Technology (Intel® VT).
- •Intel® Xeon® processor 7560 for growth. Virtustream has tested the Intel® Xeon® processor 7500 series and plans to add servers based on the Intel Xeon processor 7560 going forward.

IMPACT

- Double the performance. The xStream platform and Intel Xeon processor 5680 are giving Domino a twofold performance increase over its non-virtualized, older-generation Intel® processor-based servers, making the company more responsive to its dynamic operating environment.
- 40 percent less TCO. Domino projects up to a 40 percent reduction in TCO over three years, while also increasing availability and shrinking disaster recovery times. The cost savings enable business growth; the cloud's flexibility enables IT to focus on delivering business value rather than managing hardware.
- •Increased scalability. Virtustream's tests show it can run from 1.6 to 2.5 times more virtual machines (VMs) per rack on the Intel Xeon processor 7560 than on the Intel® Xeon® processor 5500 series, depending on workloads. Virtustream says the increased scalability means immediate cost savings and a lower carbon footprint for the company and its customers.

"The xStream* platform with the Intel® Xeon® processor 5600 series was the only secure, multi-tenanted private cloud solution available today that provided us with the right combination of performance and security worthy of our enterprise-class requirements. Our SAP* production systems now operate up to twice as fast and are highly available and secure."

– Don Whittington Chief Information Officer Domino Sugar



Domino Sugar's sophisticated SAP cloud supports thousands of users in three countries

Large-Scale Deployment

Domino Sugar uses SAP to drive its critical production systems, including enterprise resource planning, customer relationship management, invoice and order systems, business intelligence, payroll, and others. Its IT leaders didn't take the move to the cloud lightly, conducting a rigorous assessment to ensure the strategy would meet Domino's ongoing needs for performance, security, and robustness.

"With several businesses operating in multiple countries around the world and new systems being added regularly, our IT infrastructure is incredibly complex," says Don Whittington, chief information officer of Domino Sugar and chair of Americas' SAP Users' Group (ASUG) CIO Council. "We found the xStream platform with Intel Xeon processor 5600 series was the only true private cloud solution running within a multi-tenanted environment that could provide us with the right combination of performance and security worthy of our enterprise-class requirements. Our SAP production systems now operate up to twice as fast and are highly available and secure. Virtustream's utility-based deployment and pricing give us the flexibility to rapidly add resources as we need them."

"Vastly Superior"

Domino and Virtustream use the six-core Intel Xeon processor 5680 to power the infrastructure. "We apply best-of-breed technologies to our enterprise cloud computing solutions, and we have tested the available processors for scalability and throughput," says Virtustream Chief

Technology Officer Julian Box. "Without a doubt, Intel's multi-core capability is vastly superior to anything else out there."

Box says Virtustream will incorporate servers based on the Intel Xeon processor into its infrastructure mix. "The Intel Xeon processor 7500 series will have massive benefits for us and, as a result, for our customers," Box explains. "It gives us close to double-or more than doublethe revenue-generating capability in the same footprint and power envelope, depending on workloads running in the cloud. This allows us to make ourselves more competitive and share the savings with our customers. We also reduce our clients' carbon footprints. By scaling so significantly, we're getting greener by the day."

Sweet Solution

At Domino Sugar, IT is viewed not as a cost center but as a critical part of the business. With its Intel® Xeon® processor-based cloud services from Virtustream, Domino enhances business efficiency, reduces business risk, and frees IT to focus on business process improvements.

"What's key is the size and complexity of Domino's SAP environment," says Box. "This is a very, very demanding environment. With the Intel Xeon processors, Virtustream's deep infrastructure experience, and our ability to move the data as rapidly as the processors need it, we are delivering tangible benefits to Domino Sugar."

SPOTLIGHT ON DOMINO SUGAR

Domino Sugar, part of American Sugar Holdings, is the largest manufacturer and marketer of refined sugar in the U.S. In addition to consumer sales of the three top U.S. sugar brands (Domino, C&H, and Florida Crystals), the company markets and distributes products to consumer products companies, restaurants, schools, hospitals, and other establishments. A privately held company, Domino also operates internationally.

SPOTLIGHT ON VIRTUSTREAM

Virtustream is an innovative cloud provisioning firm that delivers nextgeneration infrastructure services to enterprises. Virtustream uses its secure, high-performance platform, xStream, to provide highly available and elastic compute resources at consumption-based pricing. Virtustream owns and operates data centers in the U.S. and U.K and is a founding member of the Open Data Center Alliance consortium.

Virtualization: Dynamic resource management. Optimize server utilization and increase agility through virtualization and dynamic policy-based resource management.

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1. http://www.virtustream.com/pdf/Domino-Press-Release-10-7-10.pdf

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