Case Study

Domino Sugar

One of the largest SAP production environments
running in a multi-tenant cloud

Domino Sugar, part of American Sugar Holdings, is the largest manufacturer and distributor of sweetener products in North America, inclusive of the Domino®, C&H®, Redpath® and Florida Crystals® brands. The company has grown to become a multi-billion dollar enterprise, producing four million tons of sugar per year with 180,000 acres of growing land, mills, distribution centers and an energy facility.

There's no question that Domino Sugar views IT as a critical part of business, offering competencies to improve overall operations. As such, it is vital that they leverage best-of-breed infrastructure to ensure that their IT operations run efficiently, costs are controlled, and data is secure.

Considering the proven benefits the cloud offers enterprises, Domino investigated the prospect of moving all of their IT infrastructure to the cloud to enhance IT operations, reduce risk and offload IT management, thereby redirecting IT resources to focus on other strategic projects and business process improvements.

Global business operations challenges and the IT environment

Domino markets and distributes products into three primary distribution channels: Industrial, Consumer (selling the three leading sugar brands in the United States), and Foodservice. All channels include a component that is export related and they continue to expand their international presence through acquisition.

In 2010, their parent company American Sugar Refining Inc. completed its acquisition of Tate & Lyle PLC's European sugar refining business.

Offering commodity products on a global scale presents various IT challenges associated with integrating operations. With several businesses operating in multiple countries around the world and new systems being added regularly, Domino's IT infrastructure is incredibly complex and has gone through many migrations. Their IT environment began as a traditional on-premise data center. To optimize their operations over the years, however, they've eliminated as much hardware as possible and turned to vendors to house their software and data offsite. They moved first to a co-located environment, then to a hosted environment, and finally to an application services contract. They have also historically tested and implemented new enterprise technologies and delivery methods to improve IT operations. For instance, they were early adopters of application outsourcing for their SAP deployment, which has grown in size and complexity. All critical production systems are driven by SAP, including enterprise resource planning, customer relationship management, invoice and orders systems, business intelligence, human capital management and payroll, among others.

Defining goals and identifying trusted partners

Though Domino Sugar continues to grow and expand operations, the IT team has managed to maintain their IT budget at less than one percent of overall revenue. For ongoing, efficient management of their IT infrastructure, they looked to the cloud to deliver flexibility and cost savings while improving speed, reliability and security of SAP production systems. They remained firm that whatever deployment option they chose could not sacrifice - even in the slightest - the performance of the SAP systems, which managed over 20 TB of data for thousands of users in North America.

Element	Previous scenario	Improved from cloud
Flexibility	Some server assets owned; others require multi-year commitment physical assets.	Only pay for the capacity that is needed, only when it is needed.
Availability	Some SAP production systems are highly available. All other production and non-production systems are at risk of a hardware failure causing downtime of as much as 4 hours or more.	All systems will be highly available with little risk of (not to) downtime due to hardware failure.
Disaster recovery	In the event of a disaster, up to 24 hours of data could be lost and it would take at least two days to restore systems albeit with impaired performance.	All production systems will be mirrored to an alternative site resulting in near zero data loss and less than one hour to restore full performance.
Expediency	Additional servers require weeks to procure and deploy.	Additional servers require hours to procure and deploy.
Backup and restore	Backups are done on tape (slow) and stored at a 3rd party vault. This adds time during project cutover weekends.	Backups done to disk (fast) and stored in an alternate data center (for use in the event of a disaster.)

Virtustream's utility billing model stood out as a strategic advantage as it offered Domino the ability to pay only for the precise computing power that they consumed. Under their previous ASP model, they were constrained by the technology as adding capacity or storage required a lengthy commitment and often led to underutilized infrastructure.

The move to the cloud – tangible benefits

Following a 90-day migration process, Domino deployed their entire IT infrastructure on xStream, Virtustream's consumption-based cloud platform capable of handling complex production applications. The project included a multi-thousand seat SAP enterprise application system.

As a result, SAP systems now operate up to twice as fast on xStream and are highly available and secure. The xStream platform leverages an Intel Xeon processor 5680, which delivers a twofold performance increase over non-virtualized, older generation Intel processor - based servers.

Domino projects up to a 40 percent reduction in total cost of ownership over three years, while also increasing availability and shrinking disaster recovery times. The cost savings enable business growth and the flexibility they gain from running applications on the cloud enables their team to focus on delivering business value rather than managing hardware.

The most significant cost savings are associated with eliminating the need to purchase hardware for a specific amount of time. Virtustream's utility-based deployment and pricing gave Domino the flexibility to rapidly add resources as needed. This allows for a more efficient utilization of resources and a true consumption based pricing model. Managed services will also be purchased based on aggregate workload per month rather than by infrastructure provisioned, delivering further efficiency to the bottom line.

The tipping point — SAP and other enterprise applications in the cloud

With the deployment onto xStream complete, Domino effectively runs the largest SAP production environment running in a multi-tenanted private cloud. This deployment shows a shift in thinking - CIOs and other IT professionals are beginning to trust cloud platforms and understand the benefits that can be achieved from cloud deployments.

Contact

For more information on Virtustream, please contact us at info@virtustream.com or visit us at www.virtustream.com.

About Virtustream

Virtustream, a Dell Technologies Business, is the enterprise-class cloud service and software provider trusted by enterprises worldwide to migrate and run their mission-critical applications in the cloud. For enterprises, service providers and government agencies, Virtustream's xStream® management platform and Infrastructure-as-a-Service (IaaS) meets the security, compliance, performance, efficiency and consumption-based billing requirements of complex production applications in the cloud – whether private, public or hybrid.