

# Great Western Malting Company



## EasyStreet Migrates a Huge IT Infrastructure from Texas to an Oregon Cloud

### Customer: Great Western Malting Company

- Headquartered in Vancouver, Washington.
- Leading provider of malt products to major national and international brewers and distillers.
- Processing plants, warehouses and distribution centers throughout the United States and Canada.

### Challenges:

- Mission-critical business applications outsourced to Texas data center, 2,000 miles from headquarters.
- Data center costs and service levels could be improved by migrating business applications to different provider with private Cloud.
- Extremely sensitive migration of data required, with no downtime that would interrupt business operations.

### Solution:

- Migrate the entire business application infrastructure from Texas to EasyStreet, with EasyStreet hosting a private Cloud for Great Western Malting.



Great Western Malting is large and organizationally complex, with processing plants, warehouses and distribution centers throughout the United States and Canada — all supported by a number of mission-critical business applications. When cost and service considerations drove a decision at the company in 2010 to move its entire business applications infrastructure from its Texas data center to Oregon, the IT challenge was significant.

Great Western Malting turned to EasyStreet® Online Services to host its IT infrastructure as well as to perform the highly sensitive migration between data centers some 2,000 miles apart, a process where any slip-up resulting in downtime could have serious results.

“What we did when we migrated from Texas to EasyStreet was to move from virtual server to virtual server, or from private Cloud to private Cloud, if you will,” says Mark Orchard, Great Western Malting’s Regional IT Manager for North America. “When

we executed, we executed flawlessly and the conversion was essentially perfect.”

### DEPARTING FROM TEXAS

The IT organization Orchard manages provides support for Great Western Malting’s processing plants in Washington and Idaho in the United States, Canada Malting Companies processing plants in Alberta, Ontario and Quebec in Canada, as well as warehouses and distribution centers in those locales plus California, Colorado, Illinois, New York, North Carolina and British Columbia. Great Western Malting counts large national and international brewers such as Anheuser-Busch, Miller-Coors and Heineken — plus many of North America’s microbrewers among its customers, while its Brewcraft USA subsidiary provides homebrew malt and supplies to retail stores coast to coast.

Three years ago, Great Western



Mark Orchard, Great Western Malting’s Regional IT Manager for North America. The chart behind him illustrates how barley is processed into malt, a key ingredient in beer.

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Malting outsourced its business-application infrastructure from the in-house data center in Vancouver, Washington, to a data center in Texas. After a period of time, the company moved to another Texas data center. All of this occurred before Orchard joined the company, and he explains the second move enabled Great Western Malting to have a virtual environment and reduce its number of servers. “Basically they moved onto VMware and consolidated the 10 physical servers onto two physical servers running about five VMs per server,” he notes.

More recently, a number of internal considerations — based on examining cost and service levels — prompted Great Western Malting to reconsider having the applications infrastructure so far from Vancouver. Meanwhile, the Texas company itself was changing its business direction.

“When we entered into our business relationship with the company in Texas to host our environment, that was their primary service,” Orchard explains. “Subsequently they had moved away from hosting data centers to becoming a middle-ware provider for doing B2B data exchange. In the transition from what had been their business model to their new business model, we became more of a ‘one-off’ in their data center because their core business had shifted. Over

time, we began to see their focus on our environment start to wane and shift away from ‘how do we support you’ to more about ‘how do we get you into a different business model,’ and it was a model that was never going to fit us.”

At the same time, the idea of relocating its data center environment was gaining traction at Great Western Malting.

“There were three key business drivers we looked at,” Orchard says. “One was to better manage the cost. It was costing us significantly to run our operation in Texas and we felt we could actually reduce the cost by moving our data center from Texas to Oregon.”

“In conjunction with that, we looked at increasing our service levels,” he continues. “At the Texas data center, we were in an environment where we had a zero high-availability solution, meaning that if we took a hardware hit in that data center, we were down on whatever server had been hit for the length of time it would take to actually repair and/or replace the hardware and bring it back online.”

“Finally, we wanted to establish a stronger partnership with our hosted

provider — something that was difficult to achieve given the distance between ourselves and the data center in Texas. Location was a significant factor in the decision-making process, as we wanted the opportunity to engage face-to-face with our strategic partner on a regular basis,” he adds.

## **WHY NOT EASYSTREET?**

Two situations immediately favored EasyStreet for the role of infrastructure host. One was that Great Western Malting had been an EasyStreet customer since 2006, when EasyStreet began managing the company’s Microsoft® Exchange system. The other was EasyStreet’s reputation as Oregon’s leading provider of high-quality IT services.

“What we did was slightly different than looking at three, four, or five vendors and narrowing the selection process down,” Orchard explains. “It was more a case of starting with EasyStreet as our focus and trying to determine why they weren’t the right solution. It’s two different paths to get to the same answer, but it’s the path we took because of already being



*The Great Western Malting headquarters are located on the Columbia River, within easy reach of the prime malt barley growing areas of Idaho, Montana, Oregon and Washington.*

a customer and the fact that EasyStreet was so well known to us.”

Great Western Malting asked for three EasyStreet customer references but ended up talking with several more in order to address the full scope of services the company considered placing with EasyStreet. “Ultimately, I ended up talking with six customers, and the reports from all six were glowing, with high endorsements for EasyStreet,” Orchard says. “That just reinforced our initial thinking — nothing turned up to make me believe EasyStreet was not the right choice.”

From the EasyStreet standpoint, Great Western Malting’s would be one of the larger data migrations they had performed, made even more complex by the Texas infrastructure that included the data center, an outsourced vendor for MPLS Cloud work, and several other ISPs involved in the company’s network. In Texas, routine system maintenance activities such as backups and patches either were not current or had never been performed, all of which would need to be remedied in order for the migration to be successful.

According to Scott Horn, an EasyStreet systems administrator who managed the migration from the EasyStreet end: “The biggest challenge for us was that we were talking about almost a dozen virtual machines running several hundred gigabytes of data in Texas, moving them to here — and not having any downtime whatsoever.”

## **PRACTICE MAKES PERFECT**

It’s commonplace in the IT world to move data from one data center to another, but the conventional method of accomplishing a migration was not an option for Great Western Malting.

“If we were to simply say, ‘Let’s shut down the data center in Texas, copy

our data onto hard disks, fly those hard disks to Oregon, load the data onto the infrastructure at EasyStreet and bring it all back online,’ the time involved would be measured in multiple days due to the sheer volume of data that would have been propagated across,” Orchard explains. “We didn’t have multiple days to be shut down. Our shutdowns need to be measured in hours, not days. We absolutely had to look at a way to minimize any downtime or disruption that might occur.”

On the EasyStreet end, preparation included setting up a test environment,

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a staging environment, and then a final production environment that established the private Cloud to accept the virtual machines from Texas.

An important tool in the Great Western Malting migration process was a software product called Double-Take® from Double-Take Software, Inc. It works with VMware to protect servers by leveraging real-time replication and virtualization technologies to move data from several servers to a targeted disaster-recovery server. While it is marketed mostly as an aid in disaster recovery, Double-Take seemed ideal for this type of complex data migration.

“The whole idea behind Double-Take is that it initially creates that specific instance of a server so you have a like-image on another device,” Orchard explains. “It initially creates a copy of what’s there and then continues over time to propagate

the deltas that occur, so you end up with one big file and a bunch of little files that continue to pile up. When you failover, it takes the really big file and creates it on your server and then applies all of the little files of changes that have occurred since the initial copy. In the end, you have an exact copy of what you’ve migrated across.”

“It made sense for us to buy a disk drive that we could do the initial transfer with, then we created the initial copy onto this transfer drive and shipped it from Texas to EasyStreet,” Orchard continues.

“EasyStreet brought that instance up in their data center as a copy of the prepared file to be regenerated. We then put up a virtual private network between Texas and EasyStreet and began the syncing process so that all of those delta files that had been building up in Texas could go across the virtual private network to catch up to the big file that was waiting on the other side at EasyStreet.” Multiple tests were run, involving the failover in Texas, rebuilding the infrastructure at EasyStreet and

then checking for problems.

“Each time we went through this process, we’d go in and tweak it to get further refinement,” Orchard recalls. “Practice makes perfect, and we got to the point where our validation gave us 100 percent white copy. We had to be spot-on because when we built that infrastructure up at EasyStreet, it had to be identical to what was running in Texas.”

## **LESS COST, MORE VALUE**

When the practice runs were producing uniform desired results, it was time to perform the actual move from Texas to EasyStreet.

“We started shutting down services in Texas on a Friday evening, doing the final synchronization, then doing the failover process and cloning the machines so we always had a point we could go back to,”

EasyStreet's Horn recalls. "We finished up late Saturday. The biggest issue we had was the actual networking. There was no way to do a dry run on that because they had a very large MPLS Cloud and we couldn't cut over and test that. We knew we had basic connectivity, but we weren't sure if all the routes, ACLs, all that fun stuff was in place. So that's where we had a few issues — on the parts where we couldn't do the dry runs. But that's what we'd anticipated going into it."

From the client standpoint, Orchard believes the testing enabled the highly successful results. "When we did it for real, it was within the time we'd planned for it," he says. "We started on a Friday night and ended on a Saturday night. We had a perfect cutover, lost no business data, and the system was available for use come Monday morning, and everything was good-to-go thereafter."

EasyStreet's standard operating procedure has provided another critical benefit as well. "At EasyStreet, we've also moved to a high-availability environment, meaning there's redundancy in the server infrastructure, such that in the event any piece of the hardware fails, it can failover, with the load going to a corresponding server in failover mode," Orchard comments. "Suddenly, we've gone from no high-availability to a true high-availability environment."

Plus, the successful move to EasyStreet has addressed Great Western Malting's two other business issues that prompted the decision to move the application infrastructure out of Texas.

"We were able to reduce our costs and to improve our service levels to increase the value we were adding back to the organization," Orchard says. "Any

time an IT team can lower a company's costs and increase our value-add, it's hard to argue that isn't a win/win situation."

Orchard is convinced that having Great Western Malting's applications infrastructure thousands of miles closer to the heart of the company is a distinct advantage.

"We're now in the same time zone and essentially just down the street versus being two time zones away and two thousand miles away," he explains. "There's no way to really partner with your vendor when you can't have that up-close-and-personal relationship — and truly, this is a partnership more than anything else because I'm partnering with EasyStreet to provide services to my organization."

Orchard says he's been pleased with EasyStreet's responsiveness and its willingness to help Great Western Malting with IT matters, regardless of complexity.

"Again, in the spirit of a true partnership such as you want to establish with anybody who could be a vendor for you, it's been everything I would have expected in terms of a strong partnership, and we're actually in a far better place than we were in Texas," he says. "EasyStreet is allowing us to look into how we take advantage of where we are and to be able to expand further into things as our business needs change. We may actually move more things into their data center and leverage that opportunity further and be able to drive additional cost savings as well as to increase value back to my business at the same time."

"I've been very, very pleased with EasyStreet," Orchard adds. "The relationship has been everything we'd hoped it would be."

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## ABOUT EASYSTREET

EasyStreet Online Services is Oregon's largest locally headquartered provider of IT services to the Northwest region. EasyStreet's team of professionals provides reliable, responsive and responsible services to hundreds of the area's leading organizations. EasyStreet offers a comprehensive range of IT infrastructure services that include the integration of Cloud services, server colocation and high-speed connectivity. EasyStreet has a long-standing commitment to sustainable practices and operates two energy efficient, zero-carbon-footprint data centers. Founded in 1995, EasyStreet is locally owned and managed, and is proud to be an active member of the metro community.



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