MAXAVA

WHO SAYS YOU CAN'T GO HOME AGAIN
MCGRAW-HILL EDUCATION CASE STUDY

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As anyone who has ever managed an IT installation can attest, computer technology offers equal measures of empowerment and annoyance. On one hand, computers allow us to run our businesses on a scale of complexity unimaginable just a few decades ago. Multiple platforms churn in multiple time zones, global data transfers clog the ether; and people from different cultures, speaking different languages, are able to collaborate digitally for the good of the enterprise.

On the other hand, management must perpetually contend with the aggravation of the archaic. Even the finest computers and most elegant software are cursed by the specter of obsolescence. Hardware ages faster than a runner's knees. Operating systems that worked so well just yesterday will not support tomorrow's applications. And it is this inevitable ageing process, coupled with ever-changing business models, that lead to what is arguably the most troublesome word in the IT lexicon: Migration. And while a manager's job is to maximize empowerment and minimize annoyance, the very thought of migration is enough to shrivel your digitals.

Singapore is a long way from New Jersey and there, a blissful distance from the home office, works Seow Chiak Ming, a twenty-year-plus IT veteran of educational publishing giant McGraw-Hill Education. By all accounts, he was doing a splendid job of keeping empowerment high and annoyance at bay, optimizing 9-year old equipment that was fast approaching its expiration date.

But then the ground heaved under his feet. The publishing business model was rapidly shifting from print to digital, and McGraw-Hill Education decided to consolidate globally. As Regional Manager, ERP Applications and Global Technology Solutions, Chiak Ming was part of the team evaluating options and costs for moving Singapore operations to the East Coast of the U.S.

It was a nightmarish prospect.

McGraw-Hill Education conducts 24-hour, non-stop global operations spanning New Zealand, Australia, Asia, India, UK, Europe, the Middle East and the Americas. The migration of applications and databases from the Singapore iSeries to an East Windsor, New Jersey system would take place over very long distances with unavoidable latency. It would require consolidating multiple diverse standalone applications and databases. Simultaneously, McGraw-Hill Education wanted to replicate a full copy of its system and transfer it to another iSeries in Secaucus, New Jersey, for disaster recovery purposes. At the completion of the migration, full, rapid disaster recovery had to be immediately available and—just in case Chiak Ming was suffering from challenge deficiency—McGraw-Hill Education wanted all of this done with zero disruption to its business.

At this point, Chiak Ming could well have considered early retirement, but he considered Maxava instead.

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McGraw-Hill Education has been running an IBM i production workload in Singapore for over 15 years, featuring an ERP application called Bookmaster/IP1 v7.9 for Asia Pacific. Over the years, incompatibilities emerged. In the U.S., McGraw-Hill Education ran Oracle, EMEA's (Europe, Middle East and Africa) operations on different ERP applications, Singapore did not. And operating system versions differed on the host and target computers. Meanwhile, users were generating about 15GB of data per day. That's the equivalent of information found in 15 pickup-truck-loads of books that would have to migrate without loss or interruption.

A live migration and massive rollout of a single instance, global ERP solution was going to be tricky. But Chiak Ming was impressed with Maxava's HA and DR solutions. "From the architectural design I could tell that it is a superb implementation for high availability and disaster recovery," he said. Maxava is assembled on the "efficient foundation of IBM remote journaling built right into the operating system's microcode level for efficient performance, rather than on some proprietary transfer protocol."

He came to believe that all of McGraw-Hill Education's requirements could, in fact, be met. Without downtime. He informed the home office of his findings.

They didn't believe him.

They requested Proof of Concept, which Maxava provided. The migration was on. Maxava Senior VP Simon O'Sullivan explains:

"We set-up Maxava between the old box in Singapore and the new box in New Jersey. A tape save was taken on the old box to get a 'synch point' and this tape was shipped from Singapore to New Jersey. It took 4.5 days to arrive. All the time it was being shipped, user transactions updating the old box, were being sent to the new box across a dedicated 50 Mbps link between systems. Every change made to the data on the old box was replicated to the new system at sub-second speeds. When the tape arrived it was restored to the new box and Maxava was switched on to update the database with all the transactions collected from the past 4.5 days. This brought both boxes into synch. Replication ran between OS versions: V7R1 on the Singapore box, and V7R3 and the New Jersey system.

"It took a few hours for Maxava to process 4.5 days of data, but once both systems were in synch, Maxava ran a simulated role swap to prove the data on the U.S. box was exactly the same as the data on the Singapore box. That was followed by a 'live' role swap. Production users were switched from the old box to the new one, and the new box officially became the live production system."

Remarkably, the migration was achieved with essentially zero downtime. Chiak Ming concurs:

"We achieved these mammoth objectives with Maxava HA, proving that the lag was extremely low even over a small bandwidth. We executed near real-time updates and did not affect the performance of our existing IBM i720 which was over 9 years old."

As for Chiak Ming, McGraw-Hill Education flew him to New York and arranged a ticker tape parade down 5th Avenue in his honor. OK, so I made that last part up. But surely he deserves recognition not only for guiding his company to a successful migration, but for debunking a commonly held myth.

It turns out that Thomas Wolfe was wrong: You can go home again.

At least if you're data.

ABOUT MAXAVA

Maxava is a worldwide provider of innovative monitoring, high availability and disaster recovery solutions for IBM Power Systems.

Maxava's software and services are available from a global network of partners and are integral to the cloud offerings of leading Managed Service Providers and Cloud Service Providers. Customers have been using Maxava software and services for more than 16 years to ensure business continuity, reduce risk and meet regulatory requirements.

Today, Maxava serves more than 500 customers in over 40 countries, providing 24x7x365 support directly through regional offices located in North America, Europe and Asia Pacific. Visit maxava.com for more information or find out what our customers have to say at Maxava Customer Case Study Videos.