"Our data migration was ahead of schedule and under budget. Additionally, our team didn't need to get involved in the details and remained focused on our other initiatives. The combination of Cirrus Migrate On-premises and Cirrus Migrate Cloud was invaluable." -- Storage Specialist
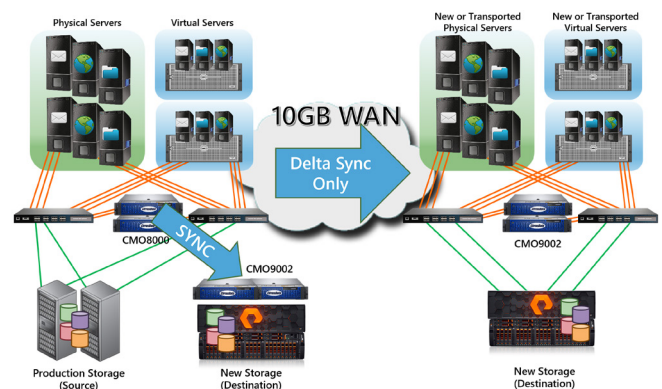
THE CHALLENGE

Today, digital technologies are revolutionizing power markets, making them smarter, more dependable, and more environmentally friendly. This inspired a Fortune 500 energy company to embrace new solutions that offer more control and choice to its more than 6 million retail customers across 24 states. The same tech-forward mindset also led the energy giant to achieve greater sustainability and resource management through new smart home solutions, digital consumer web and applications, solar energy production, and other strategic technology imperatives.

Recently, this energy giant was confronted with a new challenge: exiting a leased data center in North Carolina and transitioning 2.5 PB of crucial business applications and data to a facility it owned in Texas. This relocation needed to be completed within a strict 9-month deadline to avoid contract penalties. With its additional technology initiatives and focus on sustainability, the company decided to upgrade to a new Pure Storage system that promised to both enhance the company's storage performance and deliver cost benefits.

But the clock was ticking. Because energy delivery and consumption is an around-the-clock business, there is never a good time to take applications and databases offline. Further complicating the process, the energy company's telecommunications provider charged a high price for its fastest data connections. This meant the energy company could not perform the full migration remotely without excessive costs and delays.

THE SOLUTION

After successful collaborations with Cirrus Data Solutions (CDS) in the past, the energy company turned to CDS for this time-sensitive data center consolidation. To circumvent the telecommunication hurdles reduce costs and get the project completed on time, the Cirrus Data professional services team devised a 'lift and shift' strategy. This meant shipping the new Pure Storage system and CDS Remote Migration Appliances to North Carolina and using Cirrus Migrate On-Premises to migrate the data over multiple high speed locally attached network connections in the source

data center. This allowed the customer to not have to transfer the entire 2.5PB plus all the real time changing data over a small, contentious remote network link. There was no business disruption or downtime during this migration. Cirrus Data was able to use its intelligent QoS (iQoS) to migrate live data to the new system without impacting the applications' performance. The new fully loaded storage system and CDS Remote Migration Appliances were then securely transported to the Texas data center and installed.

Before the new system was turned on, Cirrus Data also used Cirrus Migrate Cloud for the boot drives and Cirrus Migrate On-Premises Remote to migrate and keep updated the internal server's locally attached boot drives at the remote location, moving vital OS, application and configuration information allowing for the remote data center servers to be immediately booted upon cutover of the applications and databases to the new data center.

During this boot drive migration, the CMO Appliances then kept the real time changing data deltas and the remote site kept in hourly synchronization with the new Texas Data Center.. Because only a limited delta of data needed to be transferred remotely, the energy giant could use an affordable 10GB connection. This approach securely migrated 2.5PB within the required timeframe and enabled a swift cutover with near-zero downtime.

The Cirrus Data professional services team managed the entire project. When the energy company realized they had forgotten to include its boot drives in the project, the Cirrus Data team was also able to migrate those using the Cirrus Migrate Cloud solution. The combination of a local data center high speed initial seed of data and remote migration delta catch-up strategy led to a successful and smooth migration of all 2.5 PB of data in 7 months. The energy company's critical databases and applications were safe in its own data center with nearly zero downtime—and the next project with Cirrus was already being discussed.

CHALLENGES

- Only nine months to move 2.5PB of critical block data from a leased North Carolina data center to their own data center in Texas before their contract expired.

- Required a non-disruptive migration with near-zero downtime during cutover to the new data center to protect critical applications and databases.

- Reduce telecommunications costs required to link the NC and TX data centers by avoiding the use of an expensive 40GB or 100GB connection.

- Customer required expert data migration professionals to plan, manage, and secure the 2.5PB of data in transit so the energy giant's internal team could focus on strategic business initiatives.

SOLUTION

- Cirrus Data professional services team designed and executed a "lift-and-shift" migration strategy to enable the energy company's internal team to prioritize more strategic projects and avoid exorbitant telecommunications costs.

- The lift-and-shift migration plan worked by shipping the new Pure Storage system and Cirrus Migration On-Premise Remote Migration Appliances to the closing North Carolina data center, migrating the data over multiple locally connected high speed network links wiith Cirrus Migrate On-Premises Remote Appliances, then securely transporting the fully-loaded storage system and remote appliances to the Texas data center for installation, and continuing on with the synchronization only sending the real time changing data delta resync.

CirrusData®

- After the new Pure Storage system and CDS Remote Appliances were installed in the Texas data center, Cirrus Data remotely synced the data that had been changed while the system was being securely shipped to Texas, as well as all subsequent real time changed data until the hosts, clusters, and databases were cutover to the new data center. Using a 10GB link to update the minimal changes, telecommunications costs were significantly below budget.
- When the energy giant realized their boot drives had not been included in the original migration plan, Cirrus Data used Cirrus Migrate Cloud to simplify migration of all boot drives and avoid building all the servers anew — all inside the original project timeline, allowing the customer to keep the same installation, application, and configuration of all their critical business applications and hosts.

RESULTS

- New Pure Storage system was installed and running in just 7 months, well ahead of the original timeline and deadline.
- Material telecommunications cost savings resulted from usage of Cirrus Migrate On-Premises and Cirrus Migrate Cloud.
- Live data migration prevented business disruption by achieving near zero downtime during the host reboot.
- Data migration was streamlined because Cirrus Data is pre-tested with Pure Storage and integrates with all other major block storage vendors. This eliminated concerns about the model or vendor of the storage being retired.
- Avoided data security concerns due to the Cirrus Data proven methodology and careful stewardship of the Cirrus Data professional services team.

CirrusData®

The best tools for moving, accelerating,
and protecting your SAN storage

ABOUT CIRRUS DATA

Cirrus Data Solutions Inc. is a leading technology provider of next-generation solutions for data mobility, specializing in block data migration and protection. The company distributes its solutions through systems integrators, managed service providers, channel resellers, and partners including HPE, IBM, Dell Technologies, Microsoft Azure, AWS, Hitachi, NetApp, Pure Storage, Infinidat, AEBS, AHEAD, CDW, SHI, Park Place, Presidio, ePlus, Insight, Computacenter, Sirius, WWT and many others. Cirrus Data Solutions is headquartered in Syosset, New York and has offices located in Dublin, Ireland, and Nanjing with sales and support offices in Boston and Chicago.

To begin your digital data transformation, visit Cirrus Data Solutions online.

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