



ABOUT THE COMPANY

Global Cloud Exchange Company Limited (GCX) is a Cambodia-registered company focused on Internet Data Center (IDC) and Cloud Services. The company owns and operates Cambodia's first "carrier neutral," Tier-3 Data Center, conforming to ANSI TIA-942-A International Standards.

From Design, Build, Operations and Maintenance, GCX complies with the American National Standards Institute (ANSI) and Telecommunications Industry Association (TIA) standards to cater to the ever-growing number of institutional and high-level clients of Cambodia's emerging economy, who until now have struggled to source the redundant, reliable services they require.

The establishment of GCX to these unprecedented standards was the vision of telecom professionals and IT experts who were unsuccessful in sourcing their own mission-critical requirements. They established this Joint Venture with a local property developer/entrepreneur to materialize the Carrier Neutral GCX of today, which welcomes any client facing the same issues, International/Domestic enterprises, content providers and telecom carriers alike.

Case Summary

Location: Cambodia

Vertiv Solution:

- **Power** – Liebert® APM 30-150KVA Modular UPS and UPS battery system, providing the infrastructure 15min of backup time. This will allow users to swing to do alternate source of power and possibly shut down key applications servers or services
- **Power** – Rack MPS PDU providing power to the critical IT equipment at the rack level, ability to capture the power utilization and perform hard reboot if necessary
- **Cooling** – Liebert® PEX+ downflow setup, allowing the air to be directed to the perforated floor tiles inside the Vertiv SmartAisle™ (Cold Aisle Containment- CAC), supporting and cooling the critical IT equipment intelligently with the right amount of airflow and temperature
- **Centralized Monitoring** – Liebert® RDU-Manager which manages all sensors consolidated from RDU-Appliance G2 and thus able to obtain critical sensors information gathered from Main DB information, Temperature, Humidity, water leak detection across the Data Center, sending notification like SMS and email to the team
- **Cold Aisle Containment** – SmartAisle™ formed by rows of F-series II racks has the ability to be centrally, intelligently managed. Should there be any fire detected, the top roof of the containment will automatically open to allow the fire suppression agents to flood into the infrastructure to eliminate the fire

Critical Needs: For this project, GCX initially approached different vendors for the right solution that is TIA-compliant. In addition, the customer needed a solution that is scalable and flexible, given the rapidly developing market of Cambodia. RMO Technology Co., Ltd., a leading IT consultancy and engineering company in Cambodia, introduced GCX to Vertiv, which set out the case for a single data center solution that would meet the customer's demands at a lower cost.

GLOBAL CLOUD EXCHANGE

A Vertiv Case Study

The Situation

Recognizing the potential of an emerging market such as Cambodia, GCX set out to build its first data center in the country that would cater to the country's increasingly tech-focused enterprises. With the rapidly growing internet-connected population of Cambodia, as well as consumer demand for faster broadband speeds, GCX envisioned a data center that is compliant with Telecommunications Industry Association (TIA) 942 standards, meeting international standards of efficiency and high-availability and making it the first "green" data center in Cambodia.

The Solution

Working with RMO Technology Co., Ltd for the consultancy and design and T.E.S.K Green as the deployment vendor, GCX selected Vertiv's SmartAisle™ solution for its new data center – the first of its kind in Cambodia. By combining racks, power, cooling and monitoring in a single turnkey solution, the SmartAisle offers considerable savings in both CAPEX and OPEX for the customer compared to traditional data center builds that combine solutions from various vendors.

The SmartAisle is equipped with Vertiv's industry-leading solutions, including the high efficiency row-based cooling Liebert® PEX coupled with the Liebert® iCOM Controls. Together they deliver maximum cooling efficiency, with Power Usage Effectiveness (PUE) that is 15% to 25% lower than conventionally designed data centers with the same capacity. The Liebert iCOM control also matches cooling according to rack load, providing cooling straight to the heat source for maximum efficiency.

With scalable power and intelligent monitoring via the Liebert® RDU-M and RDU A-G2, the SmartAisle also provides the highest levels of availability and efficiency for GCX and its customers. Moreover, the SmartAisle is also designed to be deployed quickly without any complications, ensuring that the customer can continue with its business-as-usual activities even while construction is ongoing.

All in all, the entire solution provided GCX with highest energy-savings, efficiency, availability, power management and green data center environment compared to traditional designs.



Pre-installation

The Outcome

Vertiv completed GCX's new Cambodia data center in just five months. Trusting a single vendor for the entire data center build process proved beneficial to GCX in the long term.

"We were planning to build this data center for years and we studied and evaluated several solutions from various vendors. In the end, we chose to work with Vertiv for the entire data center build process, which was more convenient and cost-effective for us. Dealing with a single vendor was better in terms of coordinating on design, commissioning and start-up," said Kelvin Law, Vice Chairman, Global Cloud Exchange.

In the end, choosing the SmartAisle solution compared to a traditional data center design provided GCX with the following benefits:

- Reduced installation cost compared to traditional build
- 15-25 per cent energy savings in cooling
- Increased PUE efficiency from 1.7 to 1.35
- Highest efficiency and availability UPS and Power Management
- Intelligent visibility and control of the entire data center infrastructure

With the success of its first green data center in Cambodia, GCX is well on its way of achieving TIA-942 Tier 3 certification. The customer also chose Vertiv for its second data center build, which is expected to be completed in September 2017.



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