

Top Data Center Provider in Asia Selects Vertiv UPS in Malaysia Expansion



A Vertiv Case Study



Background

As one of the top data center providers in Asia, the customer is committed to delivering world-class IT services and solutions to their rapidly growing clientele particularly in the Colocation division. In response to the increasing demand for data and the ever-changing IT environment, the customer decided to expand and further enhance their data center capacity and capabilities.

For over a decade, the customer has worked closely with Vertiv in investing in critical infrastructure solutions to support its regional expansion. Recently, the customer began its own transformation in their 12,000 sq. ft data center in Cyberjaya, Malaysia – one of the quickly evolving digital hubs strategically located at the heart of Southeast Asia. They have been comprehensively refining their power and thermal management by optimization and acquisition of new and improved cooling equipment, chilled water pumps, and around 40 units of uninterruptible power supply (UPS).

Currently, they are expanding to three more floors of their data hall, and the customer chooses Vertiv once again to provide the best power protection that can support their thermal system. This is a testament to the proven and tested quality of Vertiv's products and services, and the strong partnership with the customer

Challenge: Deploying high density yet compact uninterruptible power supply (UPS) that can support its mission-critical thermal system for its latest data center expansion

Solution: Vertiv™ Liebert® EXM2 100kVA Uninterruptible Power Supply (UPS)

Results:

- Increased Operational Efficiency and Reliability
- Improved Adaptability and Reduced Cooling Cost
- Ease of Service and Maintenance

To know more about Vertiv's power solutions, visit [Vertiv.com](https://www.vertiv.com)

Challenge

The customer is specifically looking for an efficient and reliable UPS that can seamlessly support the operation of the mechanical pumps which circulate the cooling water in the chilled water coil of their data center fan wall system. The backup power must be capable of sustaining the critical load of the thermal system for a sufficient amount of time during power outages. Additionally, the customer prefers a power support system that is cost effective, compact, and easily maintainable

Solution

In the additional floors, located are the servers and other data center equipment, consuming power as they operate and dissipating considerable amount of heat into the air. To ensure that the heat is removed, the temperature is maintained at optimum level, and that there is sufficient airflow, the customer uses a fan wall system working in tandem with chiller-based cooling technology. Interruption in this thermal management system can induce damages to their IT equipment and even devastating impact to their overall business and customers' operations. That's why it is vital to install uninterruptible power supply (UPS) to equip their thermal system in guaranteeing stability and reliability of their mission-critical infrastructures.

Among the many brands of UPS systems, the customer preferred the Vertiv™ Liebert® EXM2, which comes from the line of widely recognized as proven highly stable performing UPS in its range. The Liebert® EXM2 met the necessary cooling standards and customer requirements on cost, efficiency, and serviceability. As a result, the customer bought six units of 100kVA Liebert® EXM2 to support the thermal system for the additional floors of their data hall.



Liebert EXM2 100 - 250kVA

The following further elaborates some the remarkable features and benefits the customer can benefit from.

Increased Operational Efficiency and

Reliability: The Liebert® EXM2 can operate in three modes – double conversion (up to 97% efficiency), dynamic online mode (up to 98.8% efficiency), and intelligent paralleling mode at partial load. These result to maximum energy savings, fast transfer output performance, and further eliminating the tradeoff between availability and efficiency. It is also scalable up to 1.5MW by paralleling 6 units.

Improved Adaptability and Reduced

Cooling Cost: With the Liebert® EXM2's compact and lightweight footprint, the customer saved space up to 15% over legacy systems. It is ideal for in row server rack application, but it is also suitable for against the wall or adjacent to the wall installation. It is likewise designed and manufactured to smoothly operate up to 40 °C and tolerate high ambient temperature of up to 50 °C with auto-derating; therefore, prolonging equipment service life and reducing the cooling demand and cost.

Ease of Service and Maintenance: The Liebert® EXM2 has a full front access design making it easier for any installation and maintenance purposes.

It has common building blocks sub-assembly for an easy on-site replacement and reduced MTTR.

Results

The Vertiv™ Liebert® EXM2 provides premium power protection for the data hall's thermal system especially during unforeseen power interruption. With its highly efficient and outstanding performance, the customer can rest assured that their chilled-water pump and fan wall are always up and running, sustaining optimum temperature and airflow requirements for their additional data center floors. With a cheaper capital cost and 2% better efficiency of Liebert® EXM2 relative to other UPS in its range, the customer can enjoy significant amount of savings as CAPEX and OPEX are reduced. Moreover, since it is designed to withstand higher ambient temperature, cooling costs are also minimized. Lastly, its compact footprint allows the customer to utilize the saved space for other revenue generating equipment.

The Liebert® EXM2 definitely helps the customer beyond achieving their business goals. That is why, moving forward, Vertiv remained the preferred brand to continuously support and provide quality products to the customer in the next phase of their digital transformation.

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