

CLIENT CASE

SPACE SAVINGS

TELECOMMUNICATION SINGAPORE



- UPS type: Dynamic UPS
- Power module: 1,670 kVA
- No-break rating: 1,336 kW @ 0.8 pf of net useable power
- Engine rating: Standby rated at 1,670 kVA
- Phase 1 install: 4 modules
- Total install: 14 modules in total
- Operating voltage: 400 V/50 Hz
- Configuration: 2N, Isolated parallel
- Housing: Outdoor weatherproof containers

The client in this study is a leading global provider for a new world of communications. With a leadership position in emerging markets, the company leverages its advanced solutions capabilities and domain expertise across its global networks to deliver managed solutions to

multi-national enterprises and service provider consumers. With forty-two data centers globally and more than one million sq. ft. of net area, they offer services in major international locations around the globe.

Project Challenge

When our client decided to construct a new data center in Singapore, minimizing the facility's Gross Floor Area (GFA) and maximizing the space available for revenue-producing server racks was extremely important. Within these competing ideals the company still needed sufficient space to accommodate the necessary critical components such as the UPS system. As long as data centers have been constructed, organizations have worked hard to minimize the amount of space dedicated to supporting infrastructure, and

maximize the amount of revenue-generating rack space. This is often a difficult equation to balance, and this client site was no different.

To solve this problem, the client needed to find not only the most appropriate UPS technology, but also a company with the engineering knowledge and installation experience to help them configure the highest density of UPS power in the least amount of space. After considering several options, they selected HITEC.



Project Solution

HITEC helped this particular client preserve GFA with an innovative solution: choosing containerized Dynamic UPS systems and stacking them on the data center's rooftop.

When it came to expanding the data center in the future, HITEC was asked if it would be possible to reconfigure the existing UPS system when adding new units to support the increased building load. To answer this question, HITEC proposed an isolated parallel configuration that reduced the number of redundant units within the overall system and increased the system reliability. This

approach also allowed for an improvement in the operational efficiency of both the Dynamic UPS system and the building as a whole. At full build, the facility will be supported by a total of 14 Hitec UPS units on the roof of the building.

Each containerized Dynamic UPS module weighs in at 110,000 pounds. The rooftop deployment of 14 of these units required careful planning. HITEC engineered a solution for stacking the units two at a time in such a way that would ensure complete continuity to the building throughout the installation process, as well as for future expansion.



Customer Experience

By selecting HITEC, this client partnered with a company who assumed all responsibilities and created a highly technical approach to a difficult GFA challenge. HITEC was able to overcome the physical, mechanical, and electrical challenge

with a single proposal that saved an estimated 40% of billable space that would have otherwise been used for physical infrastructure.



 AIR WATER GROUP

**CONTINUOUS POWER
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HITEC Power Protection BV
P.O. Box 65
7600 AB Almelo
The Netherlands

Tel: +31 546 589 589

Web: hitec-ups.com

E-mail: info@hitec-ups.com