

# Keeping data safe at The Fort

The Fort represents the next generation data centre. It is a new business venture undertaken by ST Electronics (Info-Software Systems)'s subsidiary, PM-B Pte Ltd. PM-B provides data centre co-location that offers the flexibility to upscale technology and requirements as businesses grow.

The Fort offers high quality, scalable data centre solutions customised to suit customers' requirements. It is designed to accommodate systems that require high density power consumption (minimum 1200W/m<sup>2</sup> to 2000W/m<sup>2</sup>). Being carrier-neutral, it gives customers the flexibility to choose their carrier provider such as telecommunication companies or hardware and software providers.

With more than 75,000 square feet of net usable data centre space, The Fort

is able to support multiple clusters of high-end data centre facilities. Depending on the specific needs, customers can choose to set up a data suite, shared suite, or house the servers in an open rack environment.

The infrastructure within The Fort has been carefully planned. Ample gross floor space has been allocated to house base-build infrastructure such as multiple-power transformers, Uninterruptible Power Supply (UPS) systems and standby generators separated by two-hour fire-rated brick wall within each floor. Dry sprinkler systems have been installed within the data centre, together with VESDA (Very Early Smoke Detection Aspiration) system as safety measures.

The Fort is designed to meet Tier IV classification (Uptime Institute). It is built with high-end infrastructure



The Fort has 24-hour security facilities like controlled access and surveillance cameras

to provide resilience to critical data centre operations and has high availability.

The Fort prides itself as an extremely secure data centre as it has a single point of entry, high perimeter hardened wall/fencing structure and 24-hour security facilities like controlled access and surveillance cameras.



Ample gross floor space has been allocated to house base-build infrastructure

## Building the Next Generation Data Centre

Data centres are getting more complex and costly to build as they have to be scalable yet keep pace with the latest technologies. It will become more challenging to build the next generation data centre due to the increasing demands of Service Level Agreements (SLA), rising energy costs and escalating remuneration packages of data centre professionals.

There has been much talk about Green Data Centres but what exactly is a green data centre? According to Whatis.com, Green Data Centres are repositories for the storage, management, and dissemination of data. These centres' mechanical, lighting, electrical and computer systems are designed for maximum energy efficiency and minimum environmental impact. Although



building and certifying a green data centre is an expensive affair, it is believed that long-term operational cost savings outweigh the infrastructural investment.

However, surveys with several organisations have debunked this myth, as statistics have shown that building and certifying a green data centre can be non-beneficial if not done correctly.

There are several approaches in making data centres more energy efficient. Implementing server consolidation and virtualisation, installing energy efficient CPUs and cooling equipment, and hot/cold aisle methodology for heat removal in data centre designs have proven to be the most effective approaches. Organisations implementing the above methods for data centres will have a win-win situation as SLA requirements

will not be compromised and service standards can be maintained.

For the next generation data centre to stay competitive and sustainable, they should meet the following criteria:

- Reduced complexity in both design and operation – Being realistic on SLA demands can help reduce energy cost.
- Server consolidation & virtualisation – By doing just-in-time capacity to minimise idle capacity, energy use is optimised and carbon footprint can be reduced.
- Outsourcing – This will help companies free up staff cost and allow them to focus on their core business.

**For more information, please contact Peter Quek at (65) 6848 1333 or email: [peter.quek@pmb.com.sg](mailto:peter.quek@pmb.com.sg)**