

50% less space, 55% less power consumption;  
energy-saving server solutions fully backed up; 24/7/365.



### At a glance

As a key arm of NTT Communications' Asia operations, NTT Com Asia has devoted its best effort to becoming the premiere ICT Solution Partner in Hong Kong and Greater China.

At its Hong Kong Data Centre (opened in March 2009), the company asked NEC to help make their data center service more competitive. The solution was NEC's Express 5800/ECO CENTER server.

NEC customized this energy-saving server specifically for the Data Centre; it provided 30 servers, or 120 cores, and supported virtualization software. ECO CENTER is custom-built to substantially reduce power consumption by allocating application tasks according to operational needs. It also requires only half the space of a traditional server.

NTT Com Asia also launched a new service, Virtual Office Hosting, in September 2009. Built on the solid foundation provided by ECO CENTER, it provides customers with secure access to virtualized server resources any time, anywhere.

### Installation background and issues

- Data centers are required to provide highly-available system operation, 24/7/365. The data center needs to be designed with full redundancy, prepared to minimize impact of power outages and disasters, while maintaining a highly stable and secure system.
- Modern data centers must also be quickly expandable and scalable to meet with rapid increase in customer demand, as well as future business growth.
- An increasingly high number of servers are energy-consuming as well as space-consuming. And today's ultra-thin powerful servers require around-the-clock and optimally-efficient cooling systems - which are also energy-consuming.
- Use of virtualization has also become very important to utilize server resources while enabling flexible system operation.
- For years, NTT Com Asia has provided high-quality, technologically-advanced network management, security and solution services to corporations and governments around the world. And recently the company has opened the new data center in Hong Kong that offers unmatched scalability and resiliency for the most demanding power and cooling requirements.
- The company then needed an optimum platform for its new data center that offers power efficiency, high density as well as strong support for the virtualization.

### Installation results

- NEC'S ECO CENTER optimizes and reduces power consumption through sophisticated energy-saving components. This realizes 89% server power conversion rate, while a typical rate is 70 - 80%.

- Optimized cooling can be achieved by consolidating external cables on the back of the rack in a high-density configuration. These improvements minimize power requirements for cooling fans.
- In addition, efficient streamlined airflow delivers cooling efficiency. Power-saving CPU, chipset and memory contribute to reduce the power consumption. All told, ECO CENTER consumes 55% less power than conventional servers.
- Also, the server occupies 50% less space a conventional server requires. NEC's virtualization technology reallocates virtual machines, equalizes workloads and switches off idle servers. The savings from the server itself, and the reduced air conditioning and cooling, allows NTT Com Asia to easily pass the savings back to its customers - gaining competitiveness.

## ■ NEC proposal

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- NEC provided their energy-saving server, ECO CENTER. It is the best platform for power-efficiency, consolidation and virtualization technology, which are essential to the future data centers. With NEC's experience and expertise in developing energy saving and virtualization technologies, NTT Com Asia is ready for the future.

## ■ Introduction of products and solutions

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- ▣ [Energy saving server NEC Express5800/ECO CENTER](#)

▣ [Detail](#)

 Contact

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