

# **FACT SHEET**

## **Grid Service Provisioning in Singapore**

### **Introduction**

The National Grid is built upon commercial grid service providers, and seeks to equip industry and consumers with on-demand and pay-as-you-use access to high performance computing capabilities, software, and immense data storage capacity.

Singapore is one of the first countries in the world to embark on such a national effort that draws together commercial Grid Service Providers (GSPs) to offer industry and government consumers with on-demand and pay-as-you-use access to high performance computing capabilities, software, and immense data storage capacity.

On 17 June 2008, IDA awarded three consortia to be the first National GSPs. They are led by the Singapore Computer Systems Ltd (which was acquired by SingTel in August 2008), PTC System (S) Pte Ltd, and New Media Express Pte Ltd. With these commercial GSPs, grid services which are based on a pay-per-use model are now available to the masses. Businesses, from multi-national corporations to small-and-medium sized firms, can enjoy:

- Cost savings, since they no longer need to fork up hefty upfront investments in IT servers or software, and pay subsequent maintenance costs
- Better utilisation of IT resources, as they buy only what they need, and reduce idle computing resources.
- Increased competitiveness, as they can focus on core competencies instead of IT maintenance, by leveraging Grid's high performance computing capabilities to deliver new and innovative business models.

The National GSPs launched their commercial services on 1 November 2008. Businesses can now approach any of the three consortia to obtain grid services.

By 2011, more than 3,000 SMEs are expected to leverage the National Grid for on demand, pay-per-use compute, storage and software resources.

By 2013, Singapore envisions a Grid Market Hub, an infocomm-enabled marketplace of GSPs offering the global community a platform to share, buy and sell infocomm resources such as software, computing and storage, on-demand and on a pay-per-use basis.

### **Benefits of Grid Services to Users**

- Lower Cost - With the establishment of GSPs, businesses can buy high performance compute capabilities for as low as S\$0.33 per core hour, and data storage capacity for as low as S\$0.48 per GB per month. This is opposed to

having to spend thousands of dollars buying and maintaining in-house servers, or leasing them from overseas Grid providers that typically charge about US\$1 per CPU hour.

- **Compute-As-A-Service** - Firms requiring high performance computing, such as financial organisations that do data-crunching, or animation producers in Singapore, can look forward to local access to the compute capabilities of more than 2,500 cores for a start, then more than 3,500 cores by 2011, all on a pay-per-use basis. Typically, an animation company would have invested in one computer dedicated for animation rendering, for instance. But that process can be time-consuming. If more compute power is available, the process can be sped up. The GSPs will offer such companies the option to scale up their computing power when needed.
- **Storage-As-A-Service** - GSPs will offer immense storage capacity of more than 30 TB, making it possible to back-up massive amount of data. Educational institutions, for instance, which are increasingly adopting online learning models, will no longer need to fear the loss of their material stored on their in-house servers. Others, such as pharmaceutical companies that need massive archival space to keep the data generated by their experiments, can also tap on the National Grid's huge storage capacity.
- **Software-As-A-Service (SaaS)** – By 2011, businesses can look forward to choosing their software and obtaining them through on-demand pricing, from more than 80 SaaS providers who will be part of the National Grid. They will offer services such as productivity and desktop publishing tools on a pay-per-use basis.

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