



Commoditising the cloud

By David Heath
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Very soon, the unit of currency in the data centres of the world will be the Virtual Machine. Hosting of a running instance, and the price of doing so, will be the major component of the business model of just about every data centre in the world.

At this week's NetEvents Conference in Singapore, Camille Mendler of the Yankee Group offered the opinion that run-time capacity in data centres might become a tradable commodity. There could perhaps be a spot-price for free capacity which would be subject to bids by potential users; such consumers would buy (perhaps) an hour of running time (along with a range of SLA conditions which would specify the minimum CPU cycles and so on).

Others ([here](#) for instance) have also offered the same thoughts.

This is fine, but we are largely limited to living inside the data centre upon which we bestow our VM. The link referenced earlier speaks of capacity management under the control of the data centres whereby excessive load might be transferred to some other centre by the data centre operators.

In order to open up this industry to full flexibility, we need the ability to migrate a virtual machine from one data centre to another, seamlessly, while it is running under the control of the VM's owner. Once we figure that out, then data centres will suddenly become accessible and used by joe public.

This means that users will buy capacity as needed and from whoever might be cheapest. Think of it as buying regular seats between two cities with a choice of airlines. Given common SLAs, all we really care about is getting temporary use of a seat that travels from one city to the other.

The moment we break the binding between the software and the hardware, we gain the flexibility and homogeneity of a universal service.

Glancing quickly at the whole area of SLAs, we can foresee service quality and the guarantee of that service as a differentiator amongst providers - much the same as existing ISPs do now.

Next of course there will spring up services that map out a migration and management strategy to move one's running VM from centre to centre as cheap capacity becomes available.

This is a brand new area for data centres, none of us have any idea where it will develop and how it might be used.

Notionally called PaaS (Platform as a Service) this is an area well worth watching into the future.

The author travelled to Singapore as a guest of NetEvents.