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Survey on paper "Cloud computing and emerging IT platforms: Vision, hype and reality for delivering computing as the 5th utility"

1. Comparing with clusters and grids, clouds emphasize on virtualization and QoS (guaranteed in form of SLAs) a lot.

2. Clouds can provide essential and basic services with Web Service interfaces, on which customers can build 3rd-party value-added service. From this point of view, Clouds can be an ideal platform for SOA-patterned architecture.

3. Market-oriented resource management.

Four important layered entities Brokers, SLA Resource Allocator, VMs, Physical machines. The "Broker" differs with the concept in Cloudsim. Cloudsim is a simulator without negotiation mechanism (market).

As for the market concept mentioned in this paper, it is much more similar with the definition of "Web Service market" brought forward previously. But it is rather far from maturity for several reasons.

1) The quantities of alternative services are too limited to form a competitive market.

2) Interoperability of the services provided by different providers is not good.

4. There should be some work to do combined with p2p on the field of virtualization and SLAs. But still not too clear.

There have been some work on SLA-based negotiation between peers.