zimory
going beyond...

DISTRIBUTED CLOUDS

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DISTRIBUTED CLOUDS

NIMBULA AND OTHERS

Some of the more advanced vendors of infrastructure cloud technology are starting to pick up on the idea of a distributed cloud environment, where several geographically disperse data centers or cloud providers are federated into a logical single cloud. Nimbula is the last such vendor to announce basic support for managing geographically distributed clouds.

This is an interesting trend that confirms the vision Zimory has been pursuing since it was established. The cloud cannot be a monolithic environment: every telecommunications provider and most enterprises have substantial assets in existing datacenters, assets that must be leveraged in any cloud solution in order to achieve the real benefits. The cloud is not going to replace these infrastructures, especially not overnight. The widespread acceptance of Zimory's software in medium and large enterprises stems from the ability of the cloud platform to seamlessly connect data centers and cloud resources.

GOING BEYOND… A LIGHT WEIGHT USER INTERFACE

Federating clouds, however, goes well beyond providing a light weight user interface that connects to different datacenter locations.

First, an industrial strength solution must de-couple the various management layers in the cloud environment and it has to allow the reusing of processes and tools already in place in existing datacenters. This is crucial for fast adoption, efficient utilization of existing staff and enforcing enterprise SLAs. Sun integration can include connecting to existing workflow systems, using enterprise hypervisors (like VMWare or Oracle VM) and also delivering proven SLA records. All these aspects will differ across locations and continents, just as legal requirements differ.

Second, a distributed cloud solution must support independent topology models. For example, some datacenters are interconnected with high bandwidth and reachable through a WAN, others may sit behind gateways, LANs, or even satellite links. These different network topologies need to be considered when federating these resources to achieve an optimal placement of workloads and maximize utilization.

Third, remote locations require not only smart placement of workloads across them, but also smart technologies to bridge the gaps between them. Highly effective data exchange protocols and enablement technologies to distribute the data layer across locations are examples of key functionality available in Zimory's cloud solution, all of which is essential for a federated cloud to be truly functional.

CLOSING THOUGHTS

The power of distribution can only be unlocked when the cloud also controls the wide area links involved. In a TM Forum Catalyst project Zimory demonstrated the adequate management of wide area networks, combined with knowledge of cloud workloads results in a more efficient utilization of a heterogeneous, distributed cloud while still observing all legal and technical constraints on deployments.

Many of these aspects require a de-coupled architecture of the cloud solution with independent control units not only for each location, but also for all technology components. Zimory has many years of experience with distributed deployments and the technology stack covers all the key aspects of federated clouds.

Why not contact Zimory for a demo or a reference implementation?

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