Efficient Migration – A Leading Solution for Server Consolidation

Abstract

Server consolidation of virtual machines is very much essential in a cloud environment for energy conservation and cost cutting. Consolidation can be achieved through live migration of virtual machines. We propose a modified bin packing algorithm for Server Consolidation that avoids unnecessary migrations and minimizes the instantiation of new physical servers. We implement ideas from the First Fit algorithm (decreasing strategy) for live migration of virtual machines. We have simulated our algorithm using java with multiple test cases. The proposed system consequently results in Server Consolidation through minimal migrations.

References

- www.amazon.com
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- www.gogrid.com
- http://aws.amazon.com/ec2/


Index Terms
Keywords

Virtualisation  migration  Server Consolidation