UNIVERSITI TEKNOLOGI MARA

DYNAMICS RESOURCE ALLOCATION VIA VIRTUAL MACHINE FOR CLOUD COMPUTING

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ABSTRACT

Latest trend in green computing and cloud computing require efficiency in consolidating virtual machine without degrading quality of service. In this study, we are more concern on minimizing the migration of Virtual Machine, and it somehow will produce lowest power consumption. In order to achieve that we are proposing a new algorithm which it will calculate on the fly the Lower and Upper Threshold Limit by using Statistical Process Control theory. This new algorithm is called Dynamics Threshold Optimize System. Here we are applying three sigma theories in order to get the desire range for the threshold limit. And from there we are also trying to optimize the Lower Threshold Limit by applying another secondary algorithm which is called Optimize Warm Threshold Limit. This proposes technique will try to find out the mod value from the range of mean value and existing Lower Threshold Limit. When the mod value is bigger than existing Lower Threshold Limit then mod value will replace existing Lower Threshold Limit.

Index Terms – cloud computing, green computing, Dynamics Resource Allocation, Statistical Process Control, Three Sigma.

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