

To migrate or not to migrate: decision based on virtualization patterns

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Abstract. *The migration of virtual machines is a complicated task. But the decision on performing automatic migration under overload condition is even more sophisticated. To decide if the migration is worth doing, we should estimate overall resource consumption. If overload is persistent, we should migrate a VM with further low memory and disk access rate. This presentation describes a new approach to the problem. Use of machine learning allows estimate resource consumption based on virtualization patterns; that is a sequence of virtualization events. The paper discusses the correlation between guest OS internal events and virtualization events. The alternative methods for restoring dependency are analyzed as well.*