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An article entitled "Virtual Machine Consolidation in Cloud Computing Systems: Challenges and Future Trends", co-authored by Dr. Amir Masoud Rahmani, Professor of Computer Science at Khazar University, was published in Wireless Personal Communications, an international journal from Springer collection.

Cloud Computing Systems (CCSs) provides a computing capability through the Internet. It enables organizations or individuals to have a computing power without deploying and maintaining their own Information Technology infrastructure. As a cloud is realized on a vast scale cloud, it consumes an enormous amount of energy. Migration pattern, where several Virtual Machines (VMs) can be placed on a minimum number of active Physical Machines is called VMs Consolidation (VMC). Thus, this technique can be a practical approach for balancing electricity consumption and other QoS requirement in CCSs. Especially, VMC must meet the service quality requirements, minimization of both energy consumption and Service Level Agreement violation in CCSs. This paper presents a systematic survey of VMC in CCSs with particular attention to the VMC phases, metrics, objectives, migration patterns, optimization methods, and evaluation approaches of VMC. Author presented their review study based on the past literature with a focus on the type of hardware metrics, software metrics, objectives, algorithms, and architectures of VMC in CCSs.

Article can be found at this link:
https://link.springer.com/article/10.1007/s11277-020-07682-8