

Название публикации:

Cloud ERP Query Flow Control Simulation with Quality Restrictions and Profit Gaining Criteria

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Аннотация:

Cloud ERP solutions, providing business processes automation and improving visibility across the whole enterprise, are the highest growth segment of the ERP software industry. One of the important challenges faced by cloud ERP providers is the effective management of cloud services performance. Cloud ERP clients and cloud service providers have different goals. Users want to minimize their expenses while meeting the cloud ERP performance requirements. The main goal of a cloud service provider is the profit maximization through decreasing service costs and reducing the number of violations to the quality of service provided. The effective resource management and provisioning is still a challenging task for cloud computing providers because of the high variability of workload over time. On the one hand, cloud providers can respond to most of the queries owning only a restricted amount of resources, but this results in customers' requests rejection during peak hours. On the other hand, valley hours incur in over-provisioning of the resources, which forces the providers to increase their prices to be profitable. This paper represents cloud ERP query flow control model, built in Powersim, supporting cloud provider's decision-making process of resource allocation and cloud services portfolio management in order to achieve profit optimization, based on quality restrictions and query flow control mechanism.

Ключевые слова:

Cloud ERP; quality restrictions; profit criteria; query flow simulation