Optimized Dynamic Allocation Management for ERP Systems and Enterprise Services

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Abstract: To ensure the operability and reliability of large scale Enterprise Resource Planning Systems (ERP) and enterprise services, a peak-load oriented hardware sizing is often used, which results in low average utilization. The evaluation of historical load data revealed that many applications show cyclical resource consumption. The identification of load patterns can be used for static as well as dynamic allocation optimization. In this paper we show the extraction of load patterns and present self-organizing service allocation concepts. This practical evaluation of theoretical adaptive computing concepts is of particular importance for the configuration of emerging service oriented architectures (SOA).