

An evaluation of alternative architectures for transaction processing in the cloud

Authors:  [Donald Kossmann](#),  [Tim Kraska](#),  [Simon Loesing](#) | [Authors Info & Claims](#)

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Abstract

Cloud computing promises a number of advantages for the deployment of data-intensive applications. One important promise is reduced cost with a pay-as-you-go business model. Another promise is (virtually) unlimited throughput by adding servers if the workload increases. This paper lists alternative architectures to effect cloud computing for database applications and reports on the results of a comprehensive evaluation of existing commercial cloud services that have adopted these architectures. The focus of this work is on transaction processing (i.e., read and update workloads), rather than analytics or OLAP workloads, which have recently gained a great deal of attention. The results are surprising in several ways. Most importantly, it seems that all major vendors have adopted a different architecture for their cloud services. As a result, the cost and performance of the services vary significantly depending on the workload.

Feedback

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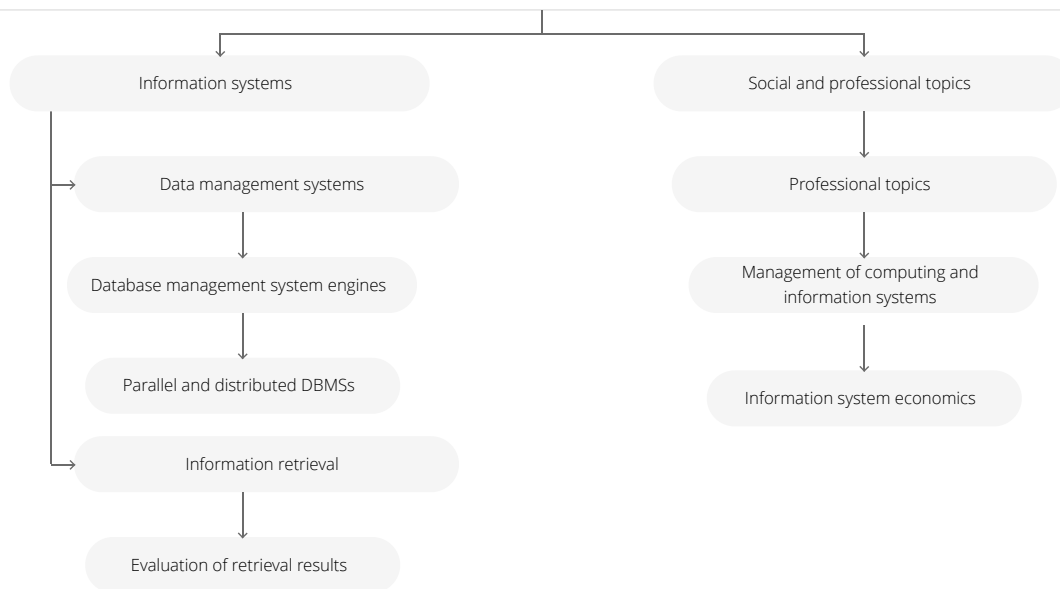
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