The Service Contract Between Cloud Provider and Consumer: Consistency Properties

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Abstract—There is a wide diversity of choices for a consumer who needs a data store to hold the information for a cloud-hosted application. Some stores are run as services by the cloud provider, others may be deployed and administered directly by the cloud consumer in infrastructure from the cloud provider. Some stores use a document model, others are relational, or graph, or they may even offer just a key-value CRUD interface. In this talk, we focus on the consistency properties. What can the consumer be confident of, when several operations are performed on the same data? We aim to help the consumer make some sense of the many alternatives from real systems and from research proposals.

I. BIOGRAPHY

Alan Fekete is Professor of Enterprise Software Systems within the School of Information Technologies at the University of Sydney. His undergraduate education was at the University of Sydney, and his doctorate was earned in the mathematics department of Harvard University. Professor Fekete has been an academic at the University of Sydney since 1988, and was promoted to Professor from 2010. He has been recognized as a Distinguished Scientist by ACM for “significant accomplishments in, and impact on, the computing field”. He is on the Executive Committee for IEEE’s Technical Committee on Data Engineering, and has repeatedly served on the Program Committee for major database conferences including SIGMOD, VLDB, ICDE and CIDR. His research has focused on transaction management, and he is also active in computer science education.