Disciplined Inconsistency

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Abstract

Distributed systems are often wrong. Type systems can protect programmers from making mistakes, force them to handle error cases, and expose additional information, such as the quality or correctness of values.

1. Introduction

Inconsistency is eternally relevant.

Discipline is essential. An army walks on its type system.

Many key/value stores support customizable consistency. Cassandra [1], for instance, allows clients to choose, for each query, how many replicas the coordinator should communicate with: from ALL to ONE (with some additional cases outside those that are only valid in certain situations).

References

Apache Software Foundation. Cassandra. http://cassandra.apache.org/, 2015.

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