Master Thesis

Trusted Deletion in Distributed Databases

Context

"The data subject shall have the right to obtain from the controller the **erasure** of personal data concerning him or her without undue delay and the controller shall have the obligation to erase personal data without undue delay where one of the following grounds applies …" – **GDPR Article 17**

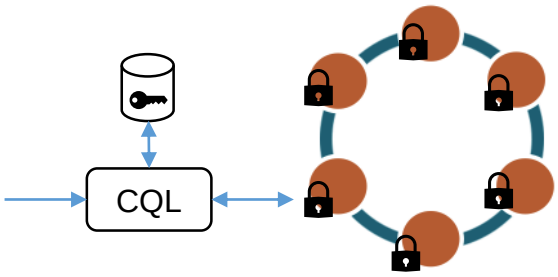
State of the Art & Problem

The implementation of the General Data Protection Regulation in 2018 now requires all data processors to truly delete data in a complete way. Most web services and other digital data processors use databases to store personal information. However, most databases do not delete data for performance reasons, especially distributed database delete only eventually, which could be seen as unlawful.

Thesis Topic & Goal

In this thesis you need to research mechanism for reliable data deletion in distributed databases. Extend an existing distributed database (preferably Cassandra) to perform reliable and instantaneous deletion of data. Benchmark the impact of your solution with other privacy enforcement techniques and implementation and distributed databases without reliable deletion.

Skills: Distributed Databases, Cryptography



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Our Mission:
Our lectures cover fundamental methods and techniques in the areas of service computing, cloud computing, and enterprise computing. We like to engage students in hands-on building of distributed information systems and to take an interdisciplinary approach to evaluating such systems. Through a close mentoring of students, especially in our seminars, we aim to introduce students to our ongoing research and to excite them to do future studies and research with us.

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