

**YOUR AWESOME THESIS TITLE**

**YOUR NAME AGAIN**

Thesis to obtain the Master of Science Degree in  
**YOUR DEGREE**

**Examination Committee**

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**MONTH YEAR**



# Acknowledgements

WHO YOU ARE THANKFUL TO :D

20th of September, Lisbon

YOUR NAME AGAIN



–CHEESY INSCRIPTION  
(dedicatória)



# Abstract

[illegible]





## Resumo

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## *Palavras Chave*

Geo-Replicação Bases de Dados NoSQL HBase Consistência Adaptável Qualidade de Dados Divergência de Réplicas em Sistemas Geo-replicados

## *Keywords*

Geo-Replication NoSQL Databases HBase Eventual Consistency Quality of Data Tunable Consistency Divergence-bounding



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# 1

## Introduction

"Your system can fail no matter how well you thought you tested it... what users will not tolerate is losing their data". – <sup>1</sup>

### *1.1 Overview*

### *1.2 Problem Statement*

### *1.3 Extended motivation and Roadmap*

### *1.4 Research Proposal*

### *1.5 Contributions*

### *1.6 Publications*

### *1.7 Structure of the thesis*

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<sup>1</sup>Lehene C. HStack, <http://hstack.org/why-were-using-hbase-part-2>



# 2

## Related Work

No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be. – *Isaac Asimov, writer and scientist (1919 - 1992)*

SOMETHING SOEMTHING

### 2.1 yo

(Marc Shapiro & Carlos Baquero 2011).

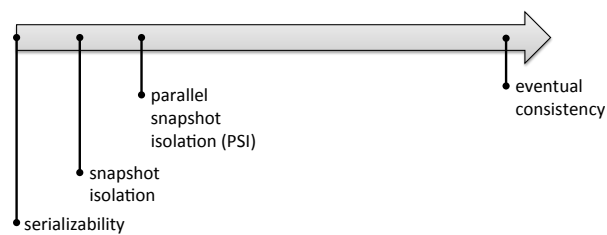


Figure 2.1: Transactional Storage for geo-replicated systems from (Sovran et al. 2011)

### Summary



# 3 Architecture

*“The greatest pleasure in life is doing what people say you cannot do.” – Walter Bagehot (British political Analyst, Economist and Editor, one of the most influential journalists of the mid-Victorian period.1826-1877)*

SOMETHING

## 3.1 System Architecture Overview

### Summary





# 4 Implementation

"Keep it simple, stupid" K-I-S-S, is an acronym as a design principle noted by the U.S. Navy in 1960. The KISS principle states that most systems work best if they are kept simple rather than made complex; therefore simplicity should be a key goal in design and unnecessary complexity should be avoided. – *Kelly Johnson, aircraft engineer (1910 - 1990)*

## 4.1 *Overall implementation approach*

## 4.2 *Integrating a HBase-QoD module*

### **Summary**



# 5 Evaluation

"Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted" – *Albert Einstein*

## 5.1 *Overview*

## 5.2 *Experimental Testbed*

## 5.3 *Performance benchmarking suite*

## **Summary**



# 6

## Conclusion

*"The last mile is always the most difficult, and (looking backwards) the best" –  
Miguel Mira Da Silva, professor at IST*

### 6.1 *Concluding remarks*

so many conclusions

### 6.2 *Future Work*

what do you see



# Bibliography

Marc Shapiro, N. P. & M. Z. Carlos Baquero (2011, July). Conflict-free replicated data types. Technical Report RR-7687.

Sovran, Y., R. Power, M. K. Aguilera, & J. Li (2011). Transactional storage for geo-replicated systems. In *Proceedings of the Twenty-Third ACM Symposium on Operating Systems Principles, SOSP '11*, New York, NY, USA, pp. 385–400. ACM.

