Simulation-based resilience prediction of microservice architectures

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Abstract. Current software simulators are tailored towards one specific purpose of conservative software simulation. Given the success of these tools it would be useful to run these tools on microservice architectures. This paper will focus on the development of a simulator that can be used for microservice architectures.

1 Introduction

Hier werden wir beschreiben was wir erreicht haben und wie wir unser Projekt angegangen sind. Es wird außerdem erläutert wie wir in diesem Paper vorgehen und was für Themengebiete genauer betrachtet werden.

2 Another Section

3 Existing Work and Tools/Research

3.1 Tools in Comparison

Spigo:

- lightweight simulator for microservice architectures written in go
- can simulate over half a dozen of microservice structures (i.e. monolith, storage)
- can simulate a failure of a system during runtime (execution is fixed and static)
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Advantages	disadvantages
easy input	hard to get overview on code
output metrics	metrics difficult to understand
	workflow not very obvious
chaos monkey	only 1 chaos monkey

Palladio/Simulizar:

– analyizing self-adaptive systems (cloud-computing)
–

advantages|disadvanteges

4 Simulator / Dokumentation

5 Conclusions

These are my conclusions.

References

[1] Eclipse Foundation. AspectJ – homepage, 2007. URL `http://www.eclipse.org/aspectj/`. Last visited November 14, 2007.

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