Fault-Tolerant Microservices

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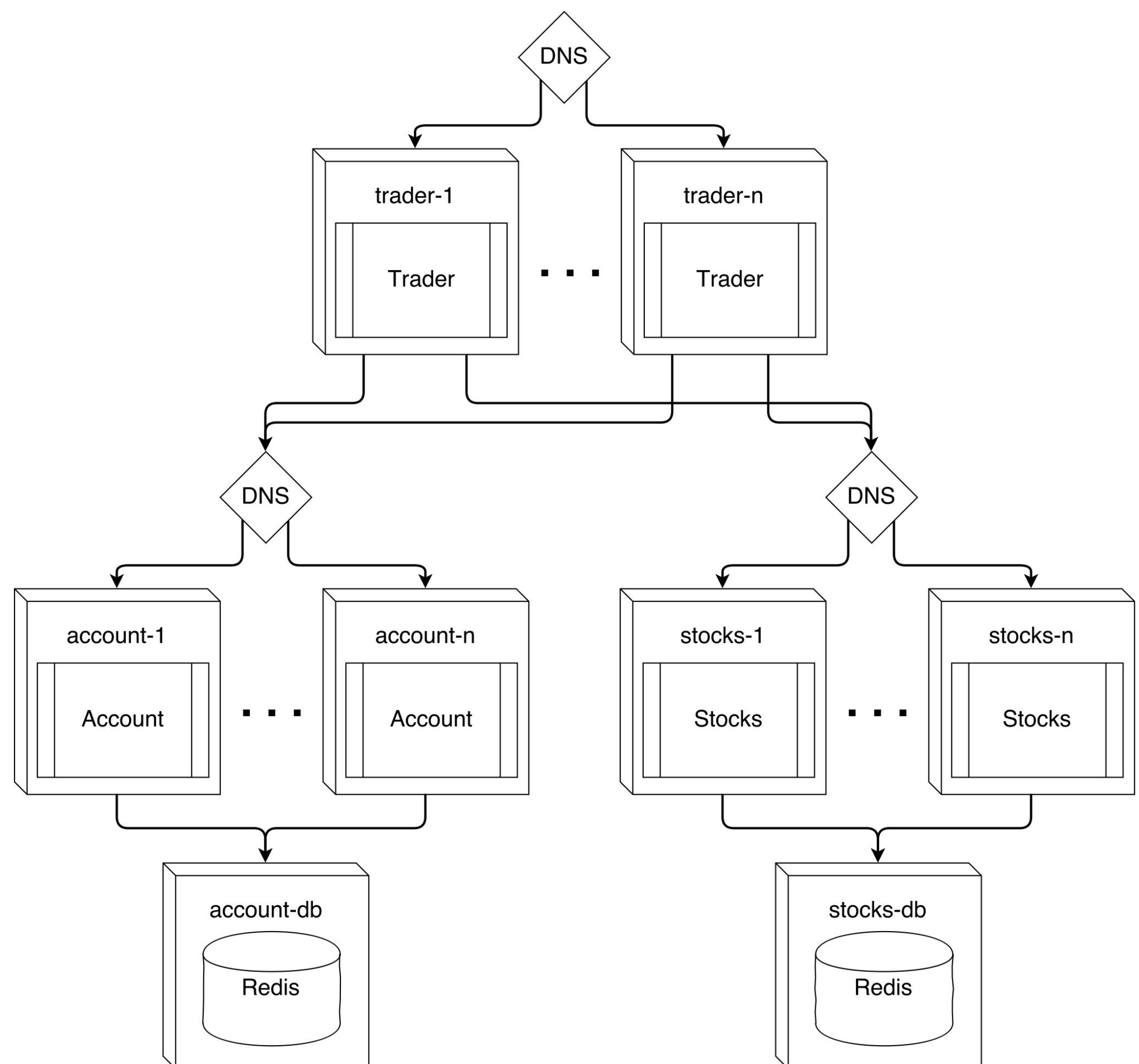
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Summary

Implementation of fault-tolerant mechanisms in microservice architectures.

Both in-code mechanisms and modern DevOps platforms and tools are applied to a dummy microservice architecture.

Simple microservice architecture, running replicated in linux containers with DNS RR load-balancing.

Bulkheads

Limiting number of concurrent requests from **service a** to **service b**.

Implemented with semaphores.

Timeouts

Set aggressive timeouts to prevent multiple services slowing down.

Circuitbreakers

Fail quickly if calls to service fail frequently. Implemented as state-machine

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