Week 7: Improving Availability and Performance of Cloud Systems

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# Improving Performance of Cloud Systems

# Background

# Problem Statement

# Goal

# Relevance and Significance

# Literature Review

1. Disaster Recovery Techniques
   1. Reasons that systems become unavailable
2. Cluster Service Schemes
   1. Using Clustering tech is fairly traditional
   2. Expand to include Performance Evaluators (based on aging)
3. Design and Implement PaaS
   1. Patterns on Kubernetes
4. Comparison of zero downtimes
   1. Blue/Green patterns
5. H+K High Availability for Stateful Services
   1. Modernizing from 1+1 to N+K overhead
6. Instanatneous Networking
   1. Operating in partially recovered state
7. Building Dependable Distributed Systems (Zhao, 2014)
   1. See 8120-7 about checkpointing and related strategies
8. Performance of distributed systems
   1. AF-Stream avoiding checkpointing
9. Aurora: Avoiding Distributed Consensus

# Approach