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Analysis of Distributed Systems

Performance Debugging for Distributed Systems of Black Boxes – SOSP'03

Path-Based Failure and Evolution Management – NSDI'04

- What is the motivation for the two papers?

- What are the differences in goals between the two?

- What environments/workloads/usage scenairos does each target?

- How does Aguilera define a *causal path*? How does Chen define a path?

- What needs to go into a trace for Aguilera? For Chen?

- What occurs on-line vs. off-line in each?

- Aguilera RPC algorithm: What is the intuition behind determining two messages are causally related? What is their heuristic for doing this? What types of patterns can't they handle well?

- Aguilera Convolution algorithm: What is the intuition behind determining two messages are causally related?

- What can Aguilera discover about a distributed system? Can Aguilera find anomolous events (e.g., due to fault)? Can Aguilera discover that a system has changed in behavior (e.g., after an upgrade)? How practical is their approach?

- What type of problems does Chen find? Can Chen find anomolous events (e.g., due to a fault)? Can Chen discover that a system has changed its behavior (e.g., after an upgrade)? How practical is their approach?