Introducing the Architecture Session

Alexander L. Wolf
University of Colorado
Theme of the Session

- Architecture-based approaches
  - As opposed to algorithm-based approaches?
- What is the *architecture*, as opposed to the *infrastructure* for carrying out self healing?
  - Does the infrastructure impose and/or constrain the choice of architecture?
  - Is the infrastructure, indeed, the self-healing architecture?
- Is it possible/desirable to be generic?
  - If not, what is the real scientific contribution?
There are big differences among systems
- small vs. large
- single-administration vs. federated
- standards based vs. proprietary interfaces
- optional vs. critical

My interest: *survivability in the extreme*
- large, federated, proprietary, critical

What would “architecture based” mean?
- What is the “architecture” of such systems?
- Could the technologies presented help me?
Papers Seeding the Discussion

The Papers Compared

u Common assumptions
  – reconfiguration is the primary mechanism
  – definition of “self-healing architecture”
  – invasive control over components
  – the reconfiguration process works

u Common theme
  – importance of conformance

u Differences
  – drivers for reconfiguration
  – details of infrastructure