Short Talk at the Middleware 2012 Doctoral Symposium

José Simão
PhD Student at Instituto Superior Técnico (IST)
Research Assistant at INESC-ID Lisboa
www.gsd.inesc-id.pt/~jsimao

Supervisor: Luís Veiga
Instituto Superior Técnico (IST)
Senior Researcher at INESC-ID Lisboa
www.gsd.inesc-id.pt/~lveiga
Adaptability in Runtimes
Running on Shared Environments

- Transparent scale-out of managed (Java) workloads
- Resource monitoring + management mechanisms
  - Lightweight concurrent checkpoint/migration
  - JSR-284 (RM API)
  - Heap size control
- Resource reallocation policies inspired by economic models
  - Yield based model to govern savings and degradations
  - Applied to heap size and CPU allocation
- Extensions to federation middleware using byte code instrumentation

[1], [2], [3], [4], [5]
References


