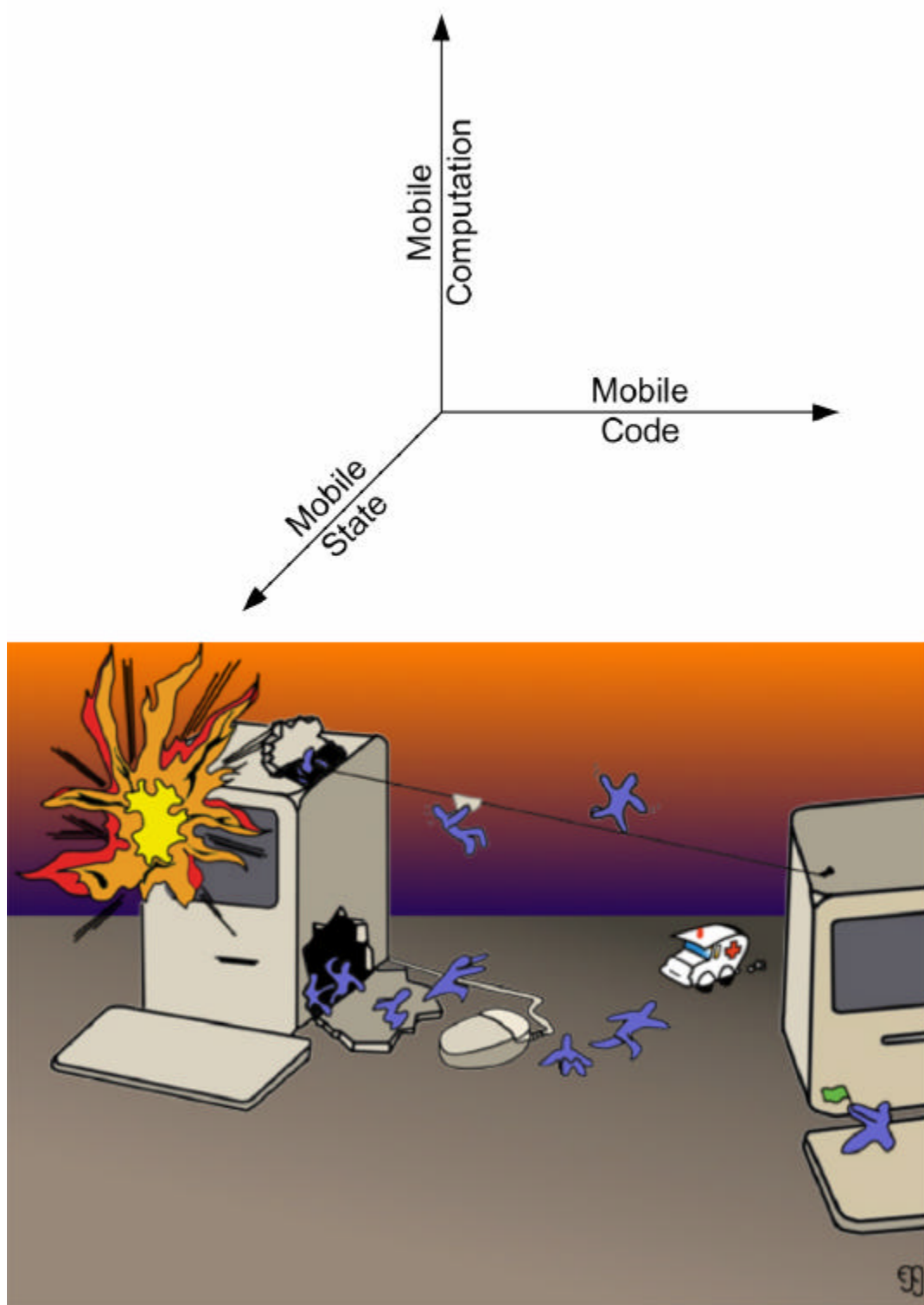


NOMADS: Mobility Support for the CoABS Grid

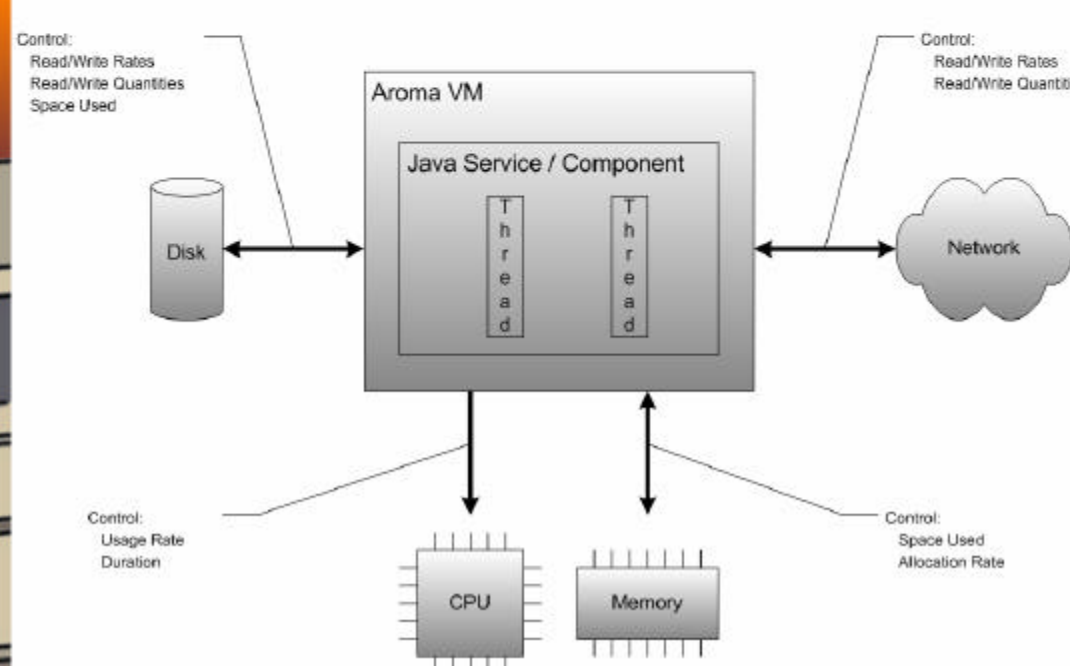
Niranjan Suri, Jeffrey M. Bradshaw, Maggie R. Breedy,
 Marco M. Carvalho, Thomas B. Cowin, Paul T. Groth
 Institute for Human and Machine Cognition, UWF, Pensacola, FL
 nsuri@ai.uwf.edu

Capabilities of Mobile Agents



Mobile Agents

- Reduce Network Bandwidth
- Support Disconnection Operation
- Counteract Network Latency
- Dynamically Download New Capabilities
- Improve Survivability
- Support Load-balancing

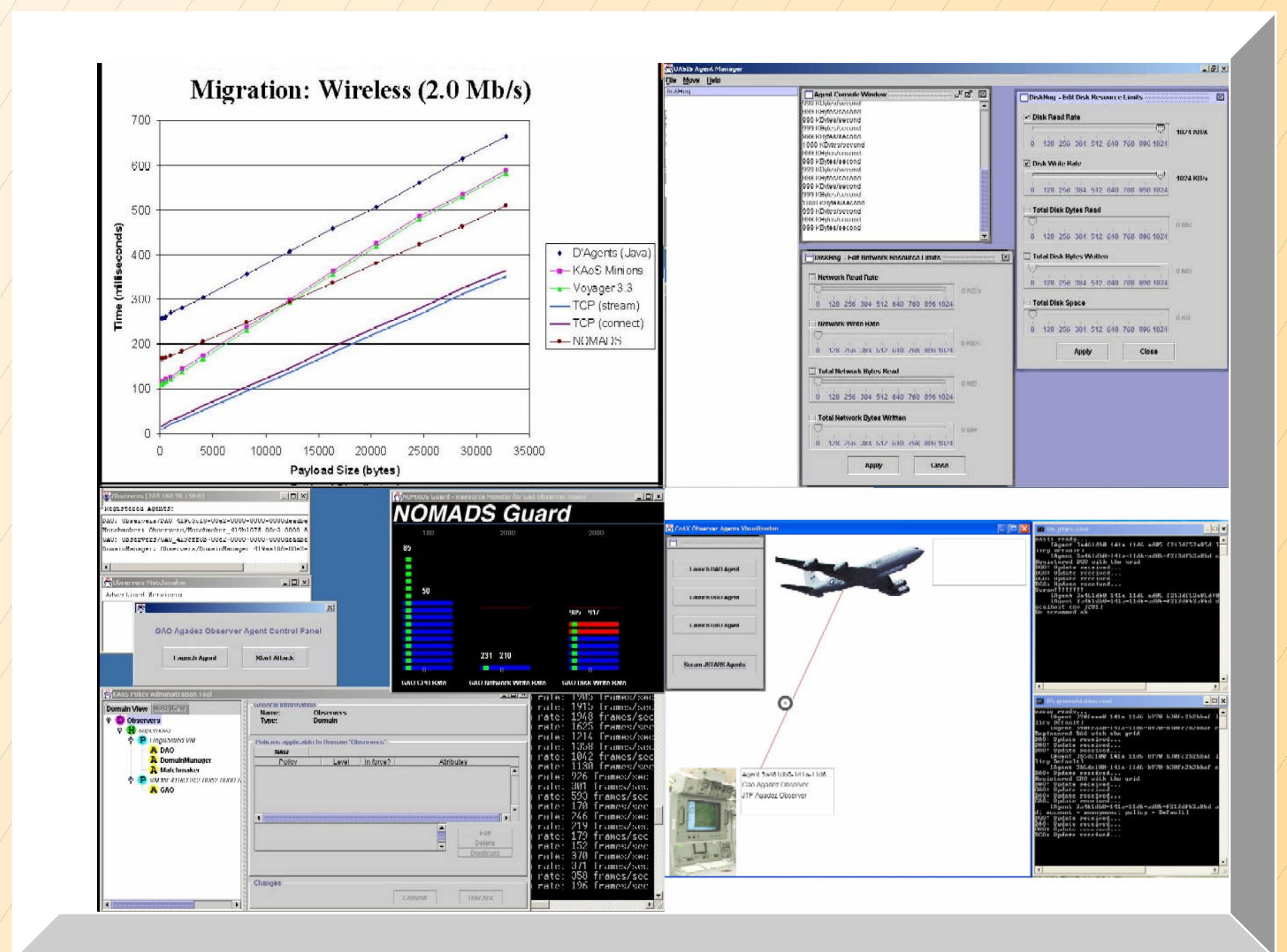


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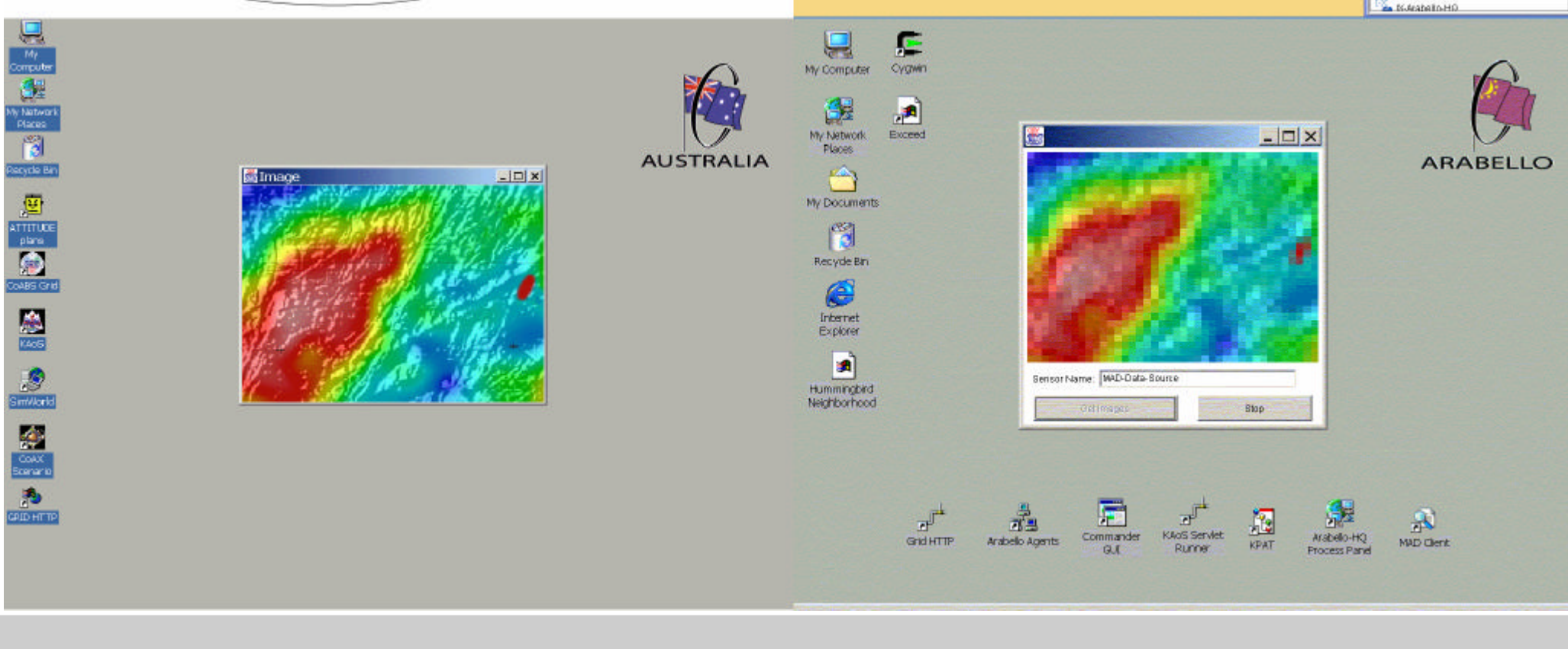
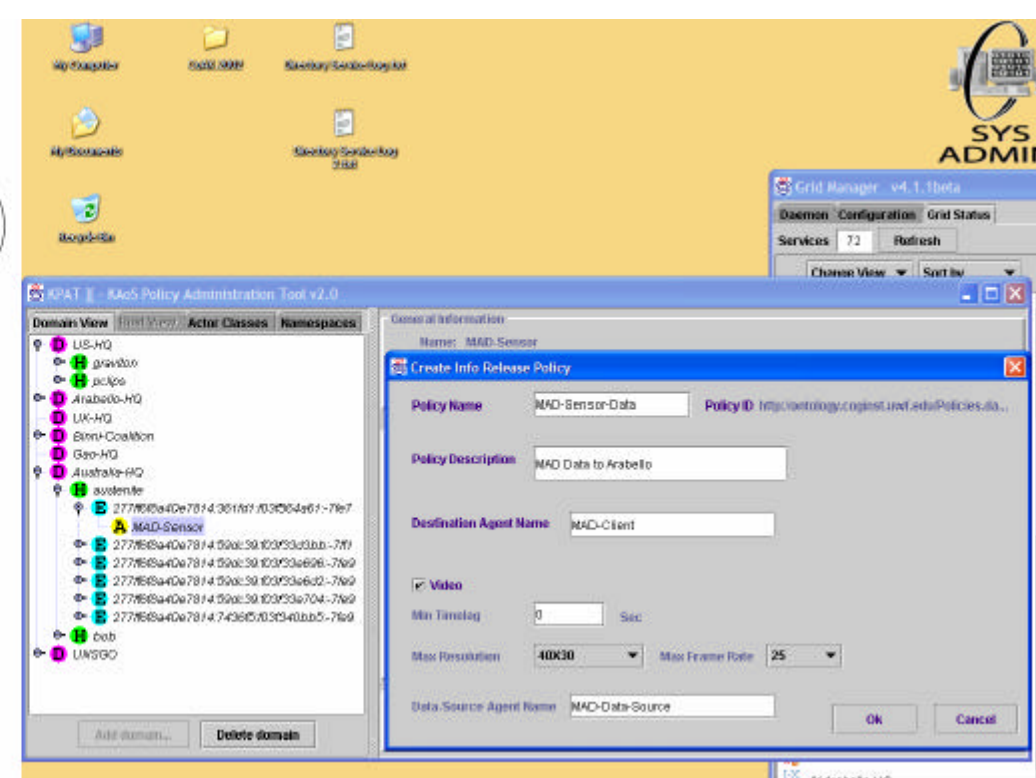
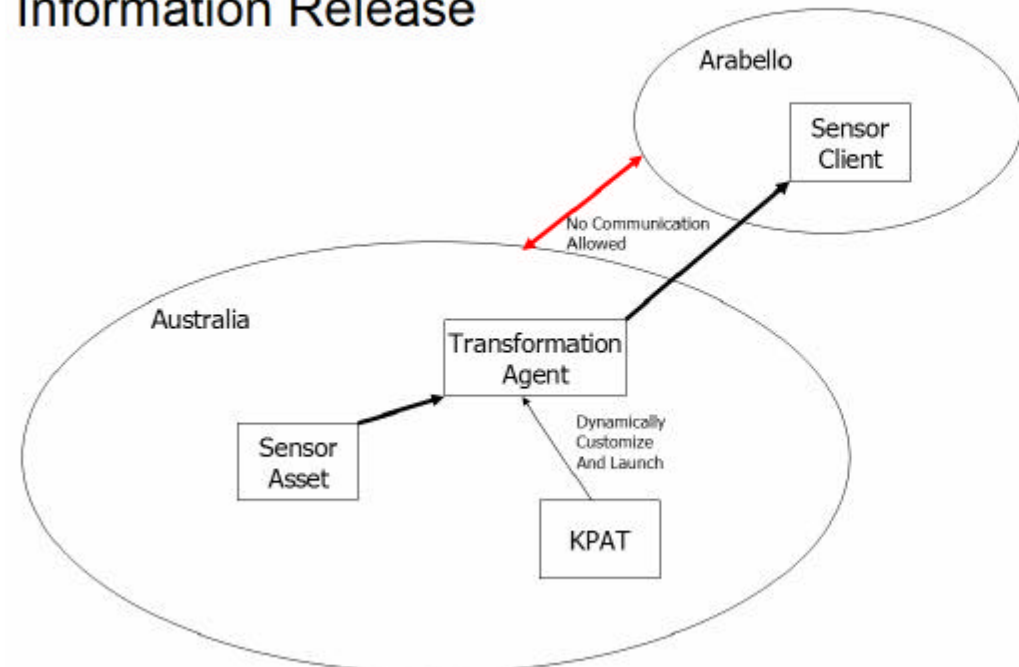
- NOMADS Provides Mobile Agent Services for the CoABS Grid
- Supports Strong and Forced Mobility
- Supports Resource Control and Strong Security
- Supports Interoperability of Mobile Agents through GMAS (Grid Mobile Agent System)
- Integrates with KAoS to Provide Policy-based Control
- Provides the Aroma VM as an Experimental Platform

Results:

- Mobility Experiments Show Benefits of Mobile Agents
- Resource Controls Protect Against Denial-of-Service Attacks (CoAX 2000)
- Strong Mobility Improves Survivability of Agents (CoAX 2001)
- Interoperability Allows Disparate MA Systems to Exchange Agents (CoAX 2002)
- Flexible Feeds Architecture Allows Policy-based Control Over Information Release (CoAX 2002)



Policy-based Control Over Information Release



Future:

- Apply in Military Domains / Contexts
 - FBEs
 - Army FCS
 - NAVSEA CSS
- Enhance FlexFeed Architecture
- Evolve NOMADS System into an Agile Computing Platform
- Enhance Aroma VM
 - Performance
 - Capabilities

