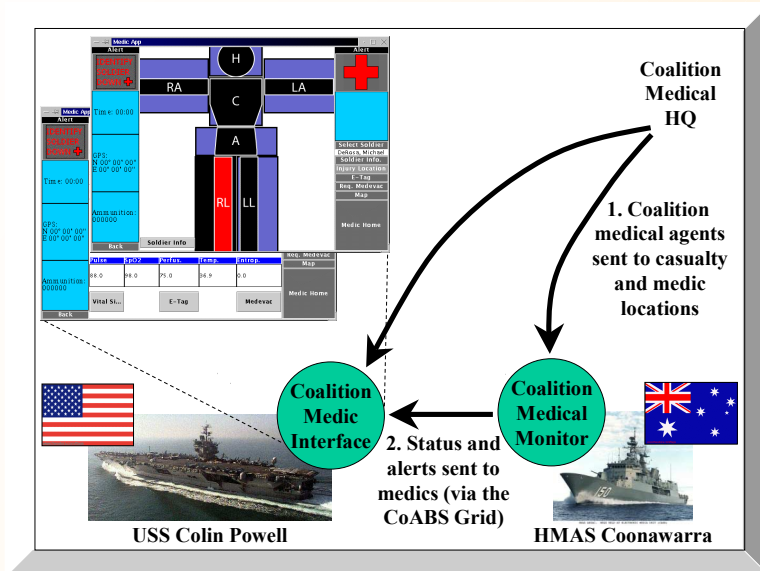


Remote Medical Monitoring

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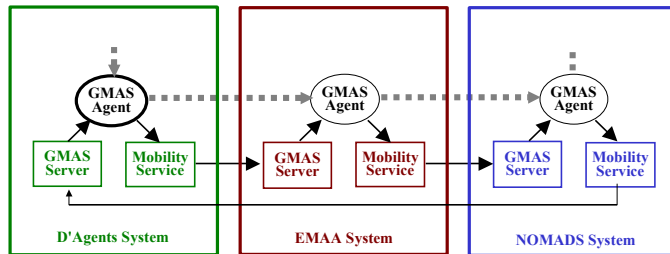
Description:

- ◆ Part of CoAX – Coalition Agents Experiment.
- ◆ Allows medical personnel to monitor the condition of remote casualties.
- ◆ Intelligent mobile agents, with embedded medical models, migrate to casualty and medic locations.
- ◆ Agents alert medics of only important changes in casualty status.
- ◆ In CoAX, the medics are on a US ship, and the casualties are on an Australian ship.

Results:

- ◆ Remote medical monitoring allows more effective use of medical resources.
- ◆ Mobile agents provide *country, unit* or even *medic-specific* monitoring, while still conserving network bandwidth.
- ◆ GMAS, the Grid Mobile Agent System, adds interoperability. The medic and casualty locations can use different mobile-agent systems, particularly important for Coalition operations.

Grid Mobile Agent System (GMAS)



GMAS Agents

- Java 2 programs
- GridMobileAgent and Serializable interfaces

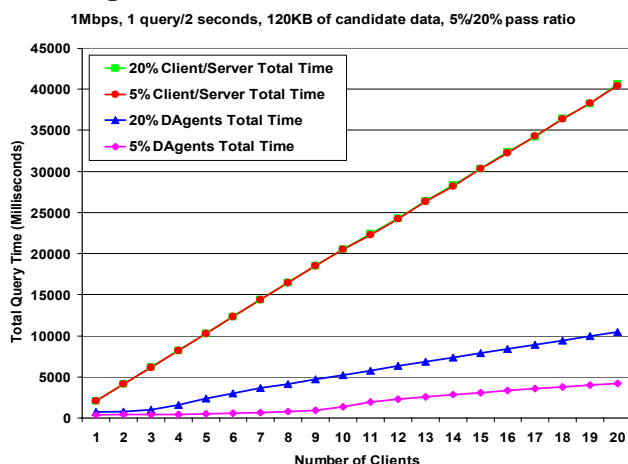
Mobility Service

- Converts agents to GMAML
- Handles all Grid communication

GMAS Server

- Grid-enabled Java 2 program
- Reconstructs agents from GMAML
- Injects agent into native agent system

Mobile Agent Performance



Future:

- ◆ Enhanced medical models with inputs from additional types of medical sensors (each casualty wears a pulse-oximeter in the current system).
- ◆ Integration with field hospitals, evacuation teams, and other medical entities.
- ◆ Extension to civilian first-responder applications.
- ◆ Final version of GMAS