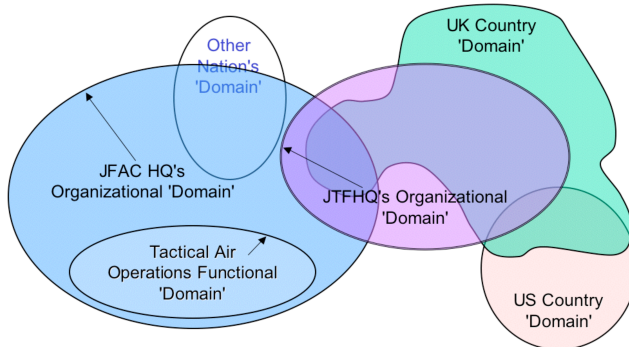




# Policy-Based Management of Coalition Domains using KAoS

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## Coalition Domains in CoAX



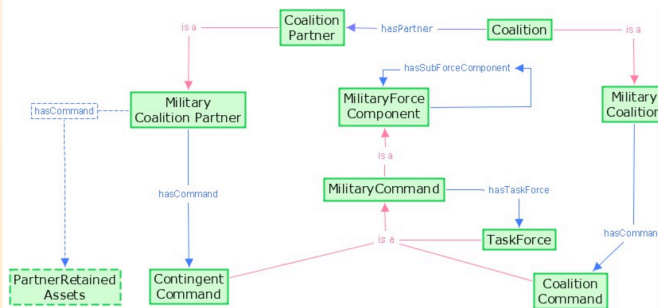
### Description:

- KAoS Policy-Based Domain Management services can:
  - structure complex agent relationships using DAML
  - define, deconflict, and enforce coalition policies
  - be easily used by any CoABS grid agent
  - support any agent platform (CoABS grid, CORBA, Cougar, NOMADS, Voyager, etc.)
  - be administered through high-level tools

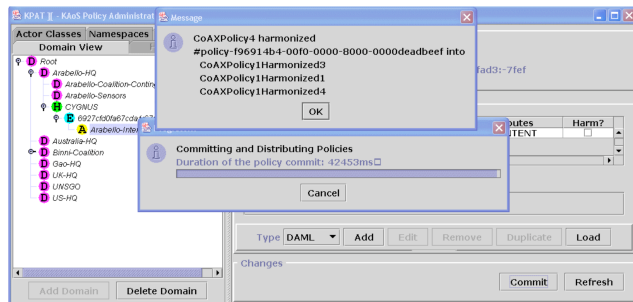
### Results:

- Rapid integration of new coalition partners
- Complex relationships among coalition partners and their agents represented as KAoS domains
- Policies demonstrated for
  - Secure communication and access control
  - Resource management
  - Content filtering
- Policy conflict resolution assures consistency among policies
- KAoS Policy Administration Tool (KPAT) eliminates the need to understand the details of DAML

## DAML Representation of Coalition Domains and Policies



## KAoS Policy Conflict Resolution



### Future:

- Simplify and streamline KPAT user interface
- Performance enhancements to reasoning mechanisms
- Continue R&D on obligation policies, adjustable autonomy, and human-agent/human-robotic teamwork
- Leverage results to other DARPA and NASA research programs
- Explore opportunities to participate in future experimentation with Joint and Coalition Forces demonstrations