

FlexiNet and FollowMe Developments

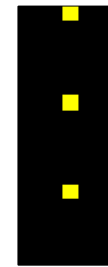
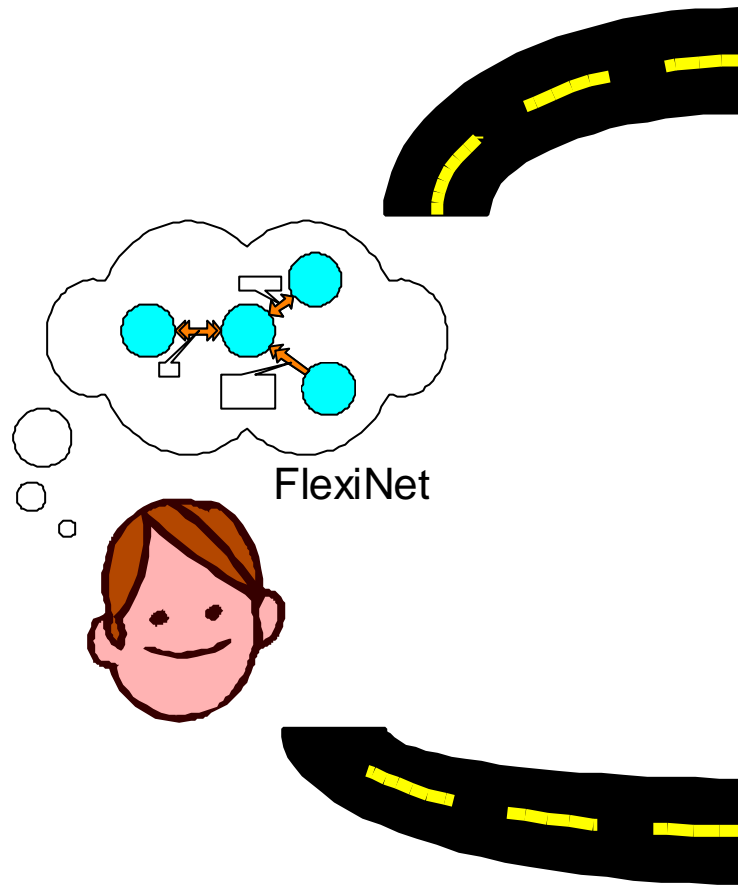
ANSA Technical Committee

21st July 1998

Douglas Donaldson and Richard Hayton

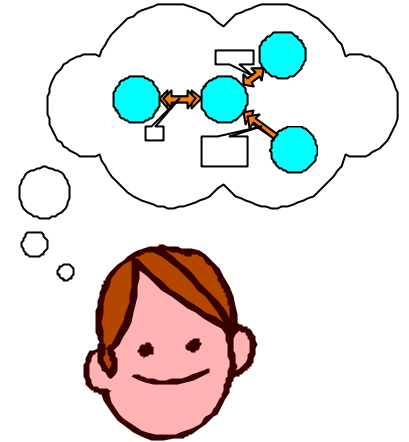


Roadmaps and Roundabouts





FlexiNet



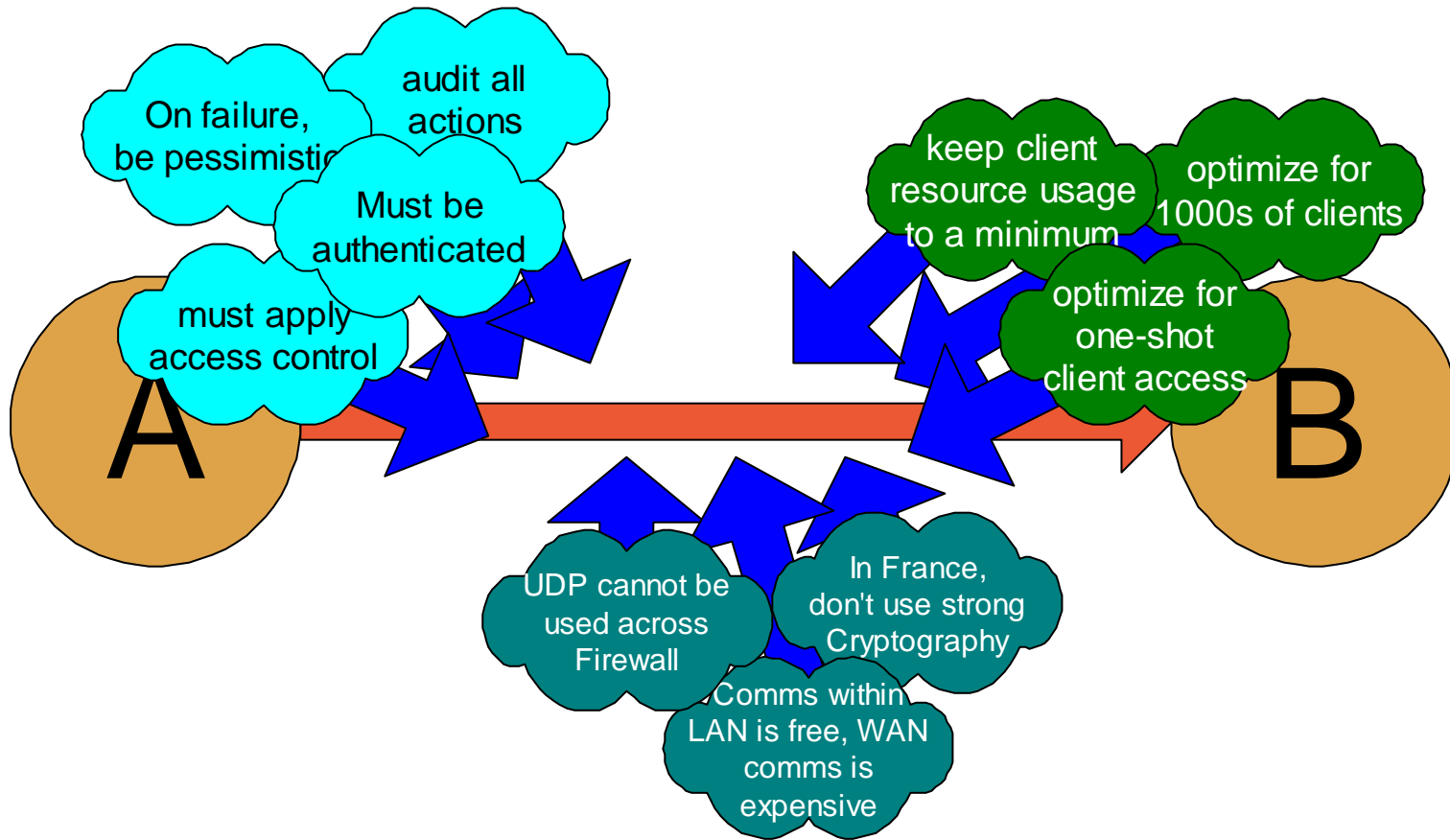
- Conceived of as an infrastructure for distributed application *deployment...*
- ... But what is deployment?
 - “The process of moving applications from development into use” [definition by me which suits my purposes for this talk]
- The application programmer needs
 - To concentrate on the computational model (objects in the application domain)
 - To be free from concerns of engineering the middleware



Computational Concern



Engineering Concerns





RM-ODP



- We already have a vocabulary for discussing this *separation of concerns* : RM-ODP viewpoint analysis
 - Enterprise concerned with the business activities
 - Information concerned with the information that needs to be stored and processed
 - **Computational** concerned with the information that needs to be stored and processed
 - **Engineering** concerned with the mechanisms supporting system distribution
 - Technology concerned with the mechanisms supporting system distribution

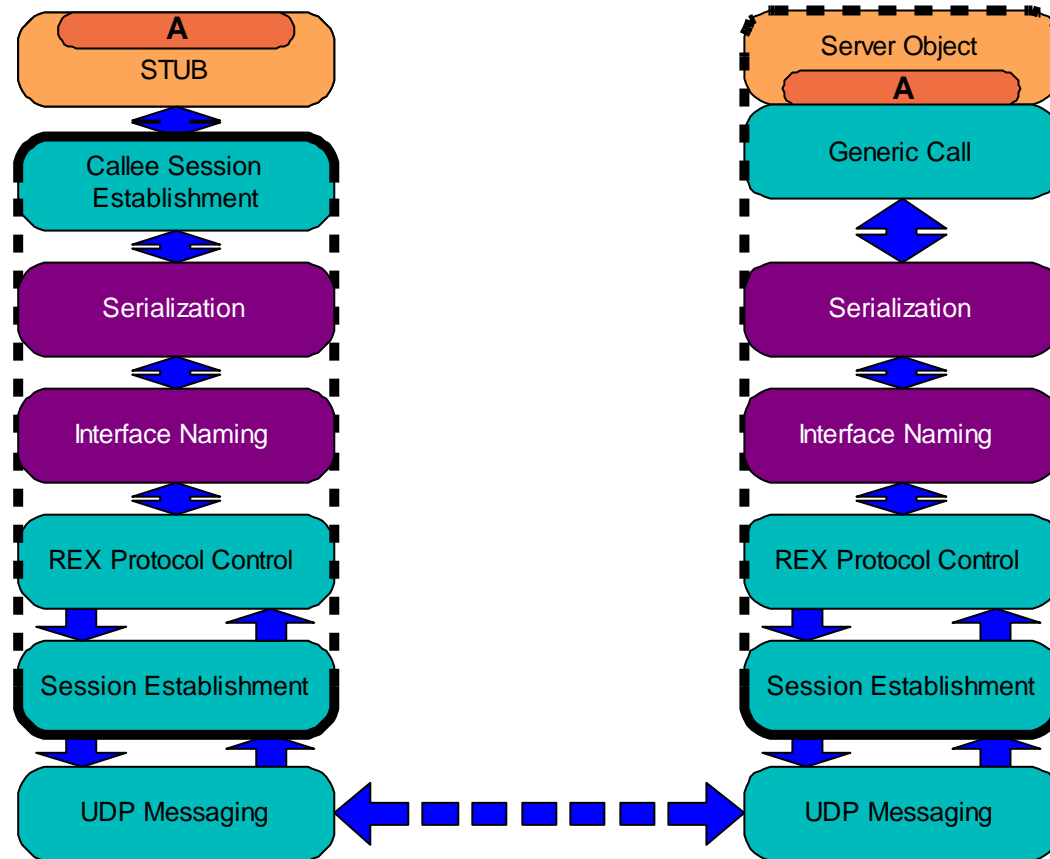


How to Focus on Computation - Use Distribution Transparencies

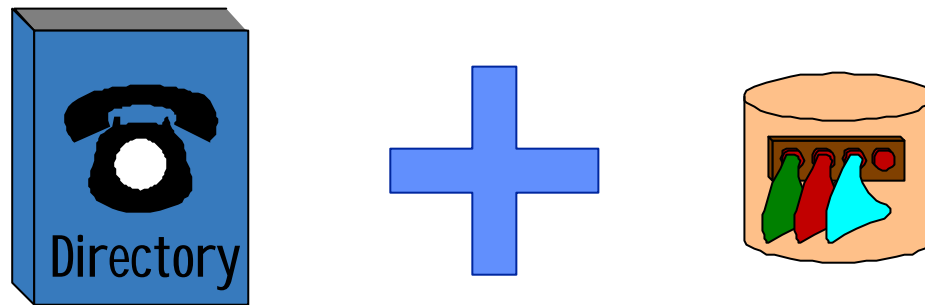
- Access
 - Location
 - Migration
 - Relocation
 - Persistence
 - Failure
 - Transaction
 - Replication
 - Security
- Access objects regardless of object or client location*
- Allow the object and client to move*
- Long lived, failure tolerant objects*
- Consistent, concurrent access*
- For scale, performance, availability*
- Control and audit access*



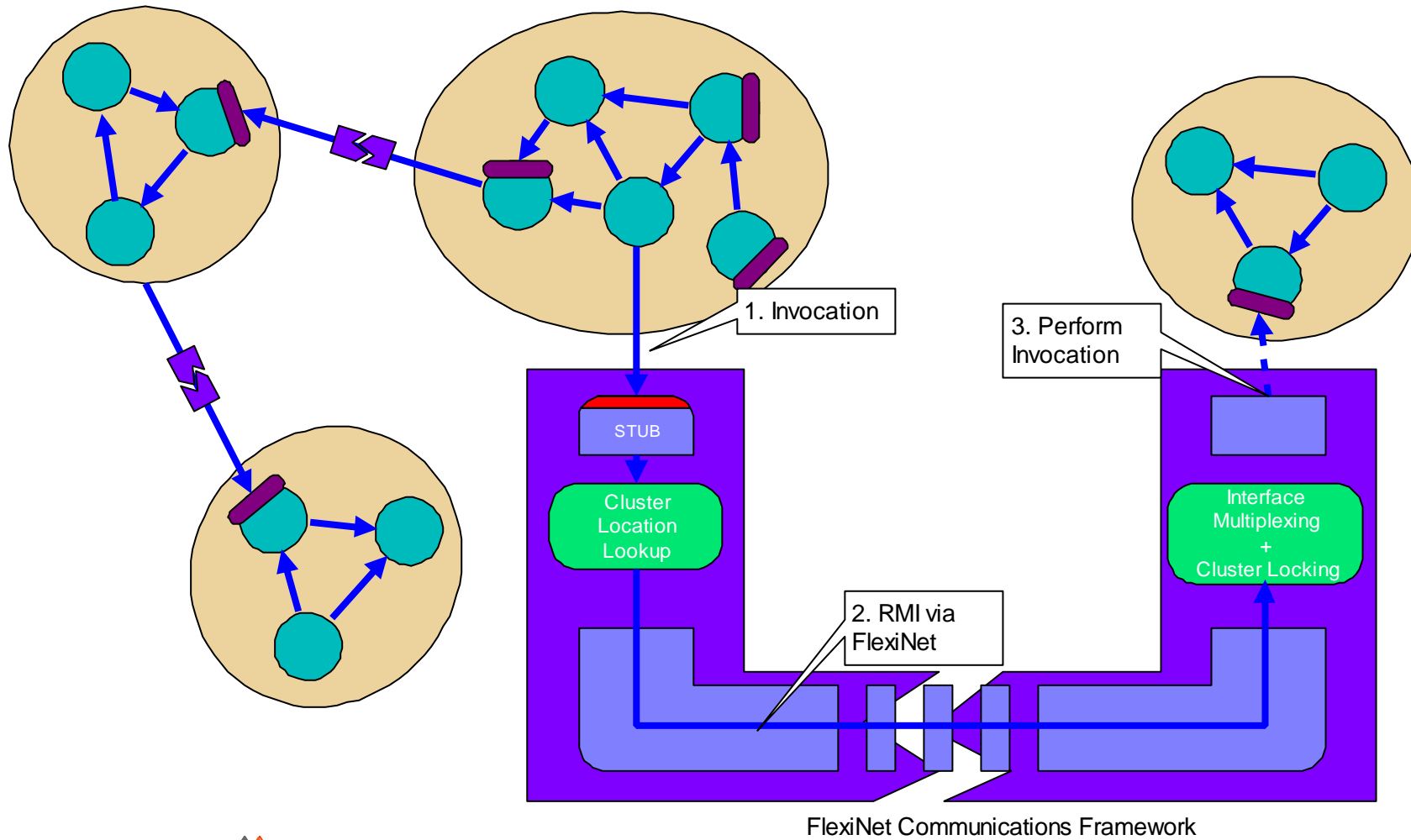
Access Transparency



Location Transparency

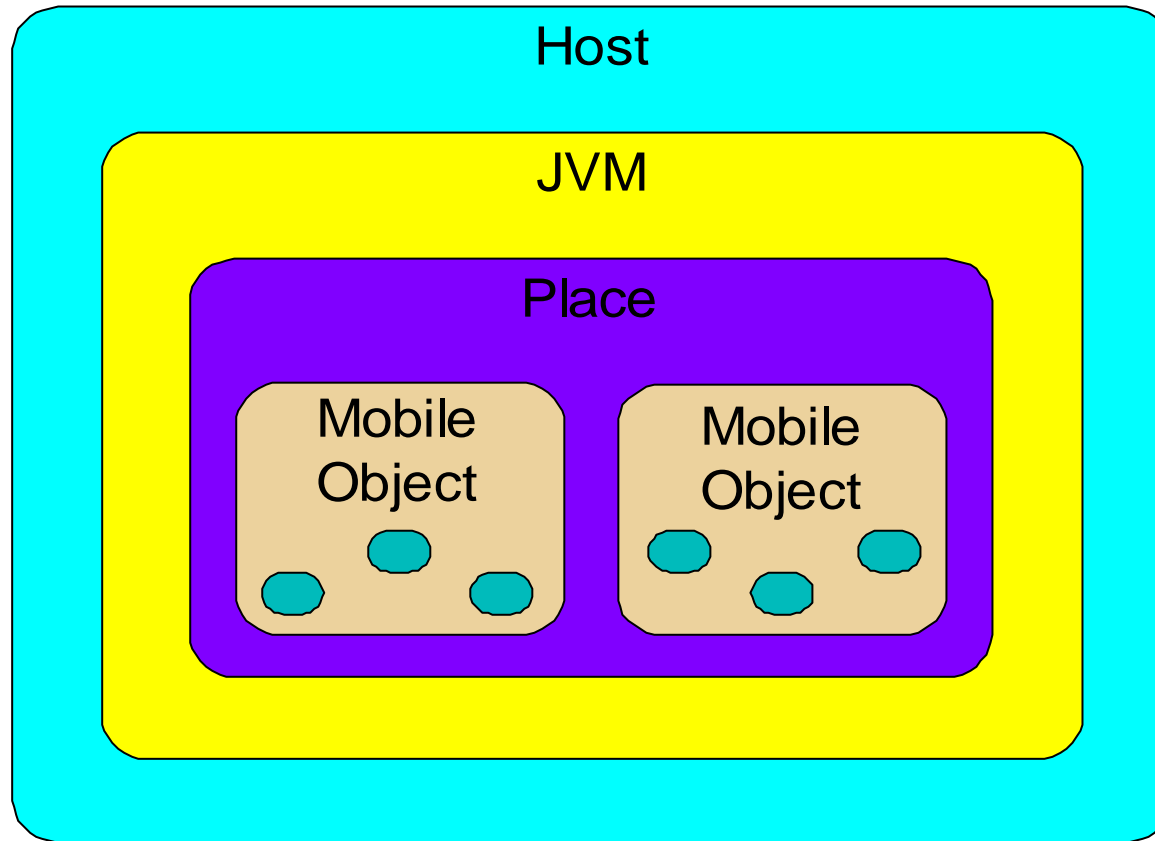


Migration and Relocation Transparency

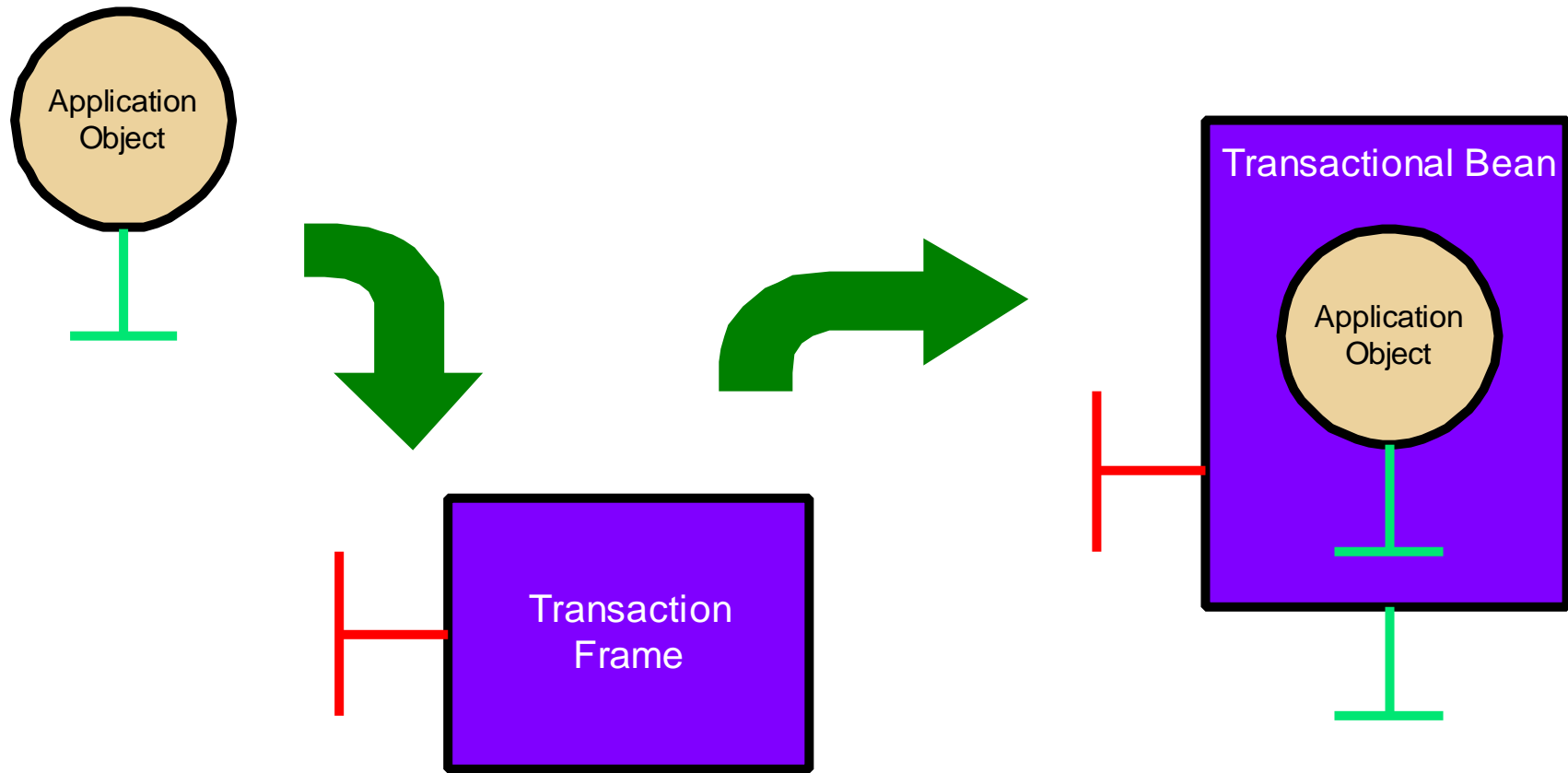




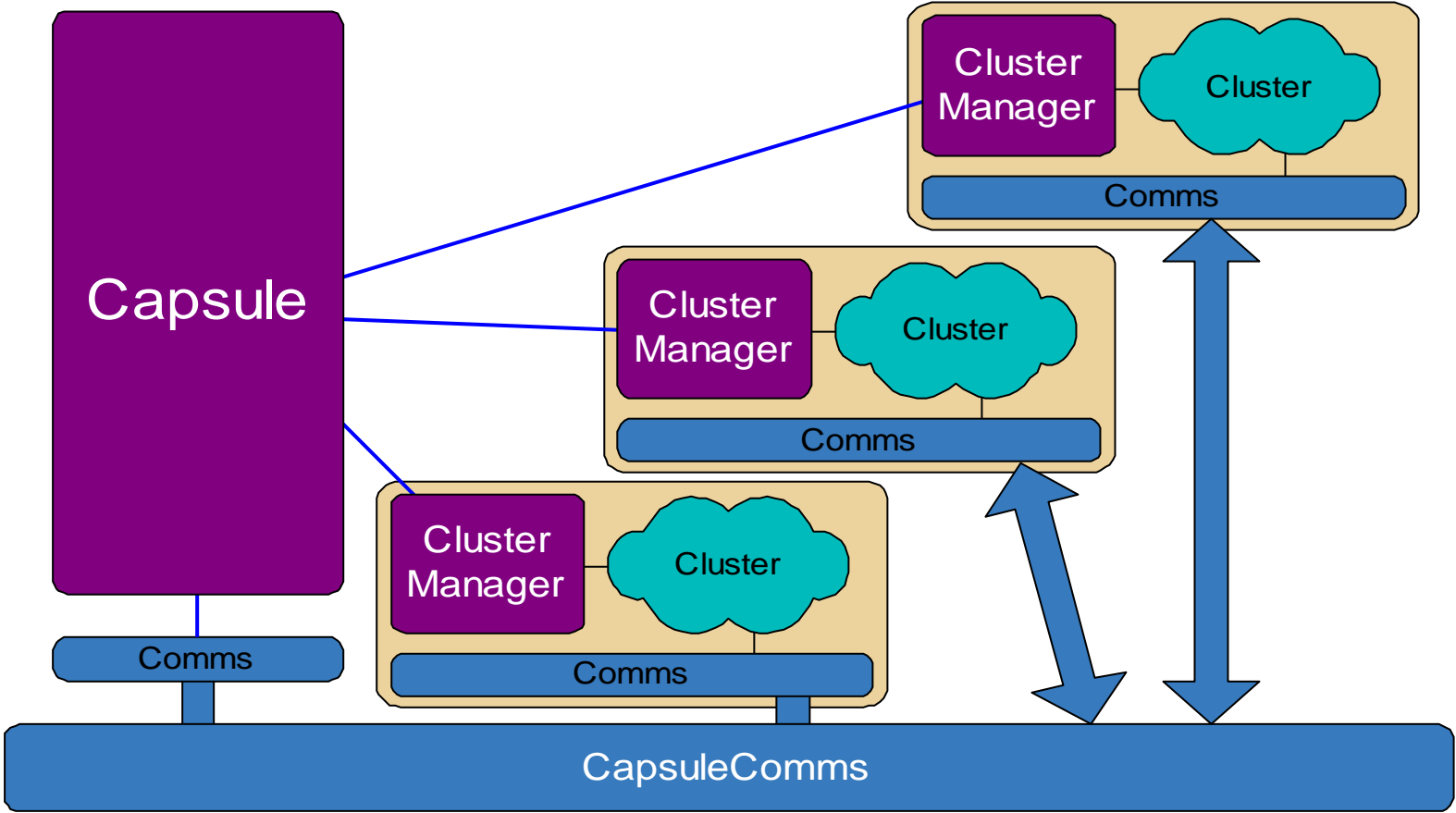
Lifecycle Management



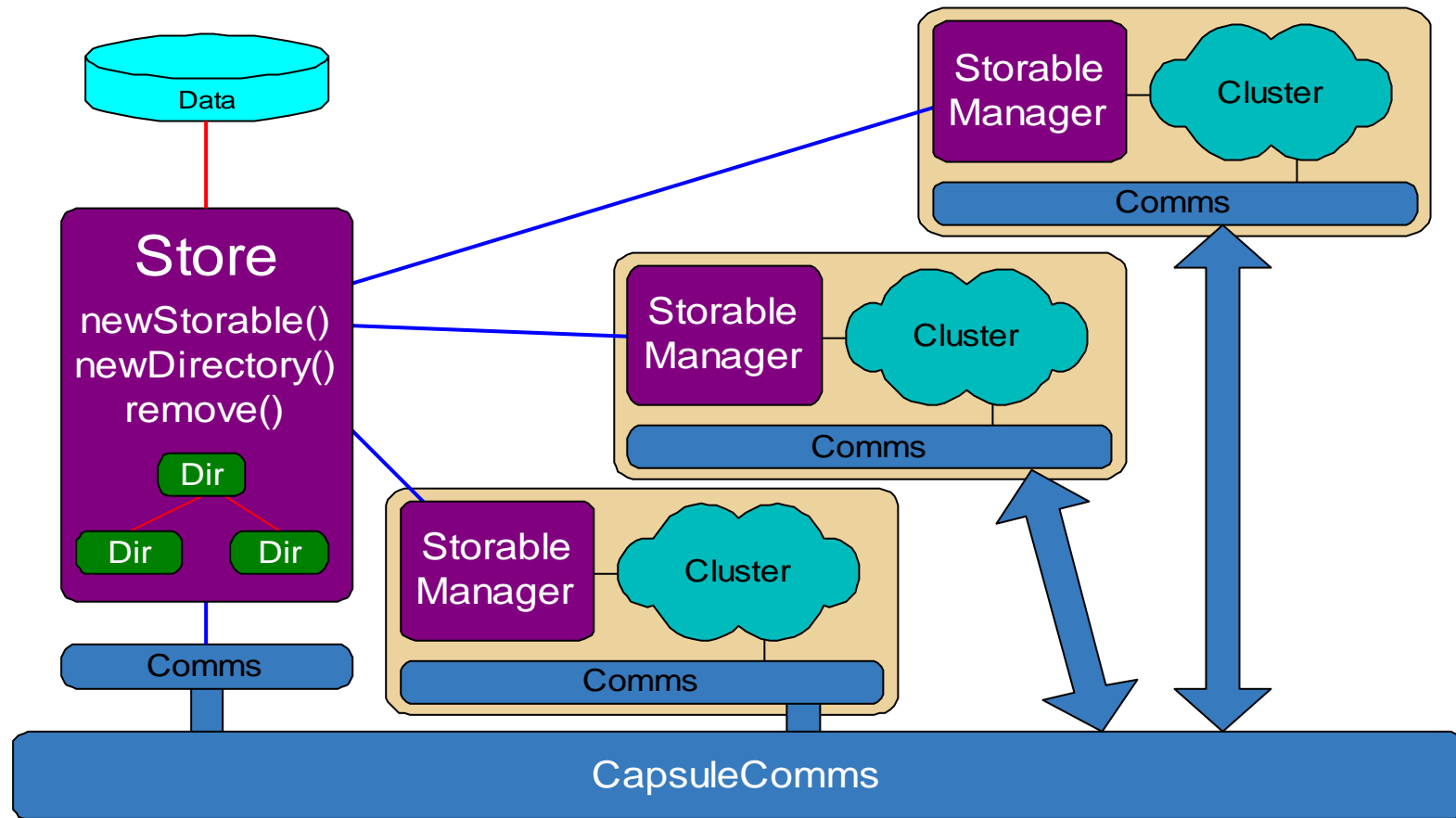
Transactional Beans



Generalising... Back to RM-ODP



Specialising... Persistence Transparency



Separation of Management Concerns

- Capsules
 - control cluster lifecycle
 - impose management
- ClusterManagers
 - may implement management policy
 - may expose management interface to policy controller
- Autonomous Objects
 - are given their own management interface



Summary

