

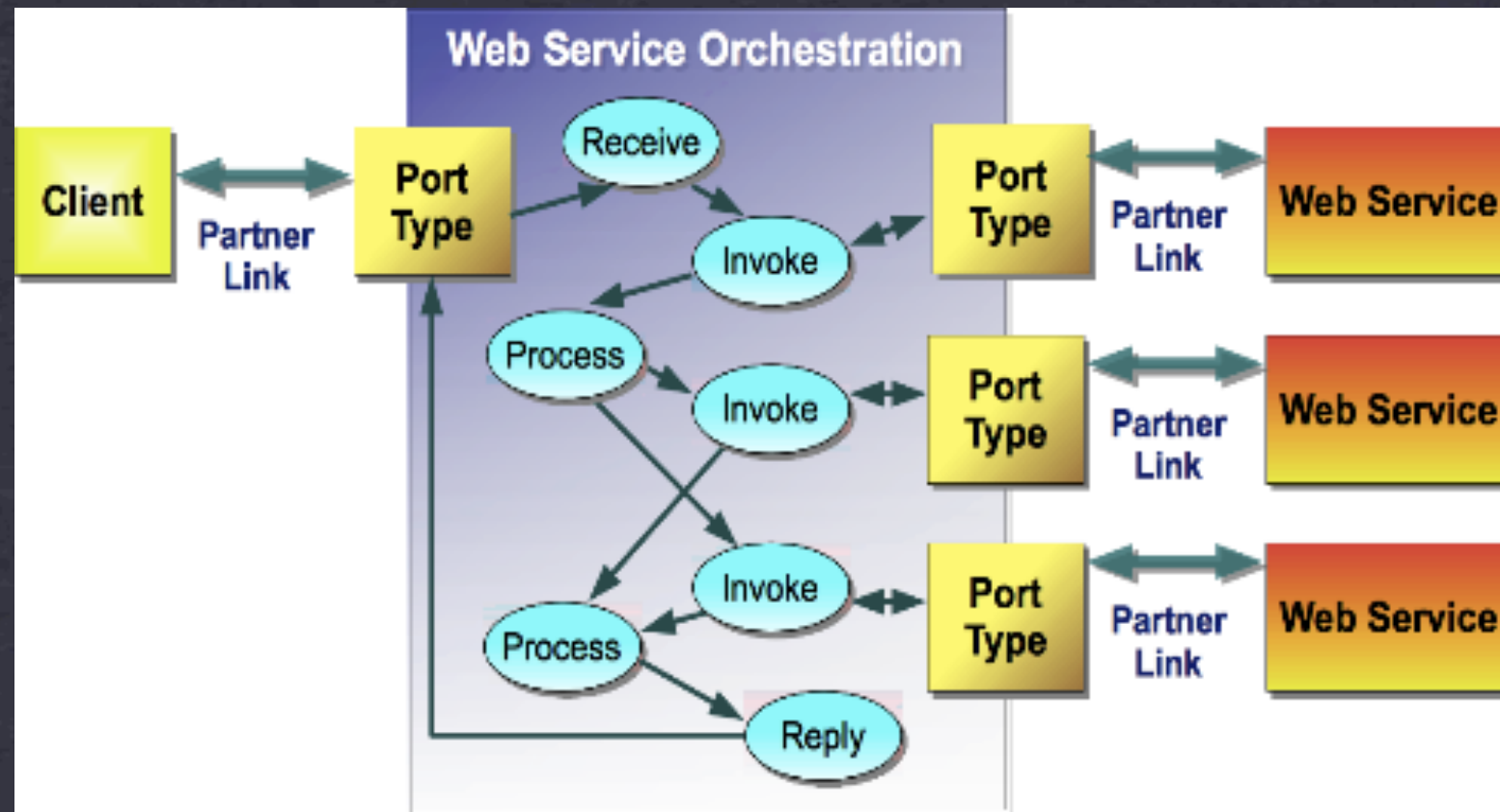


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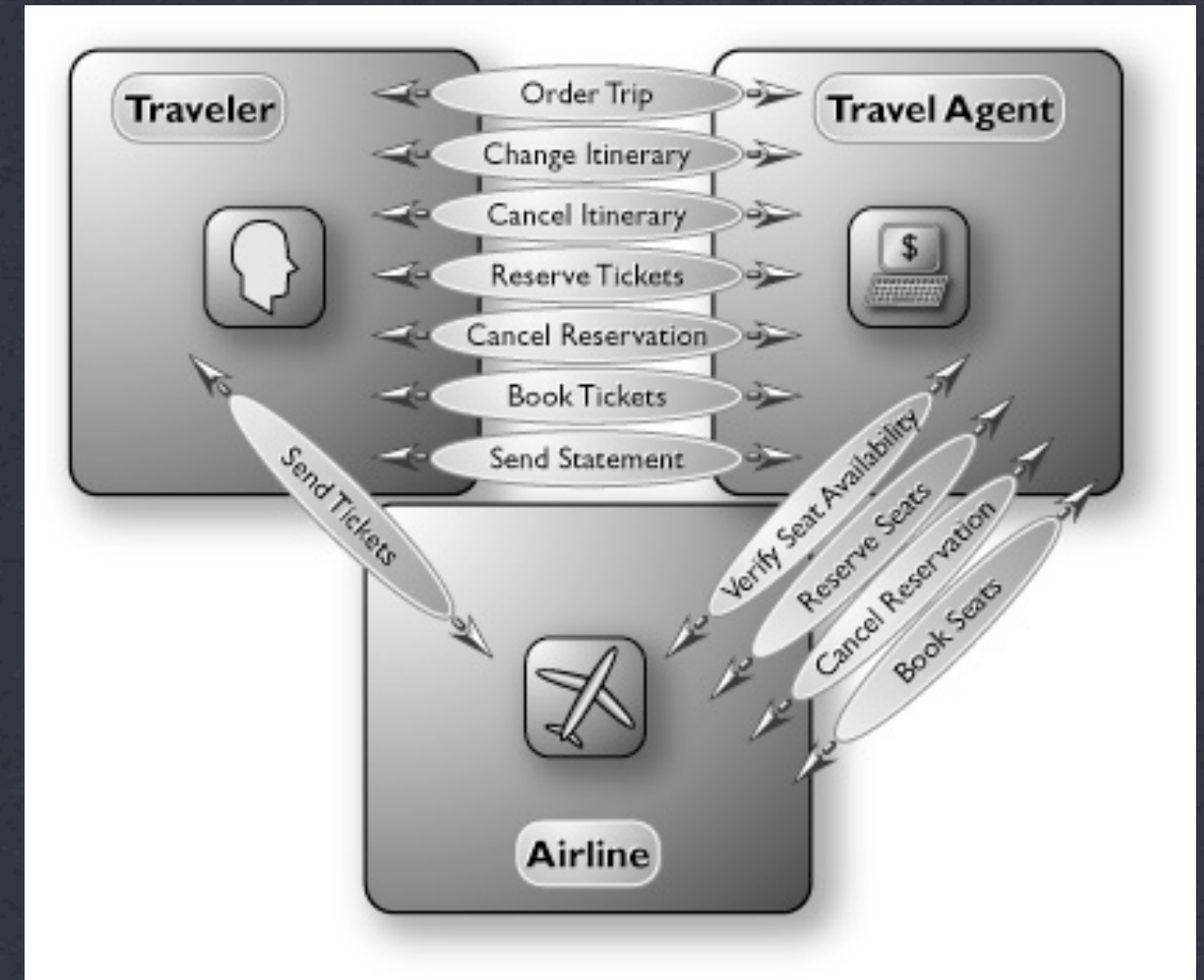
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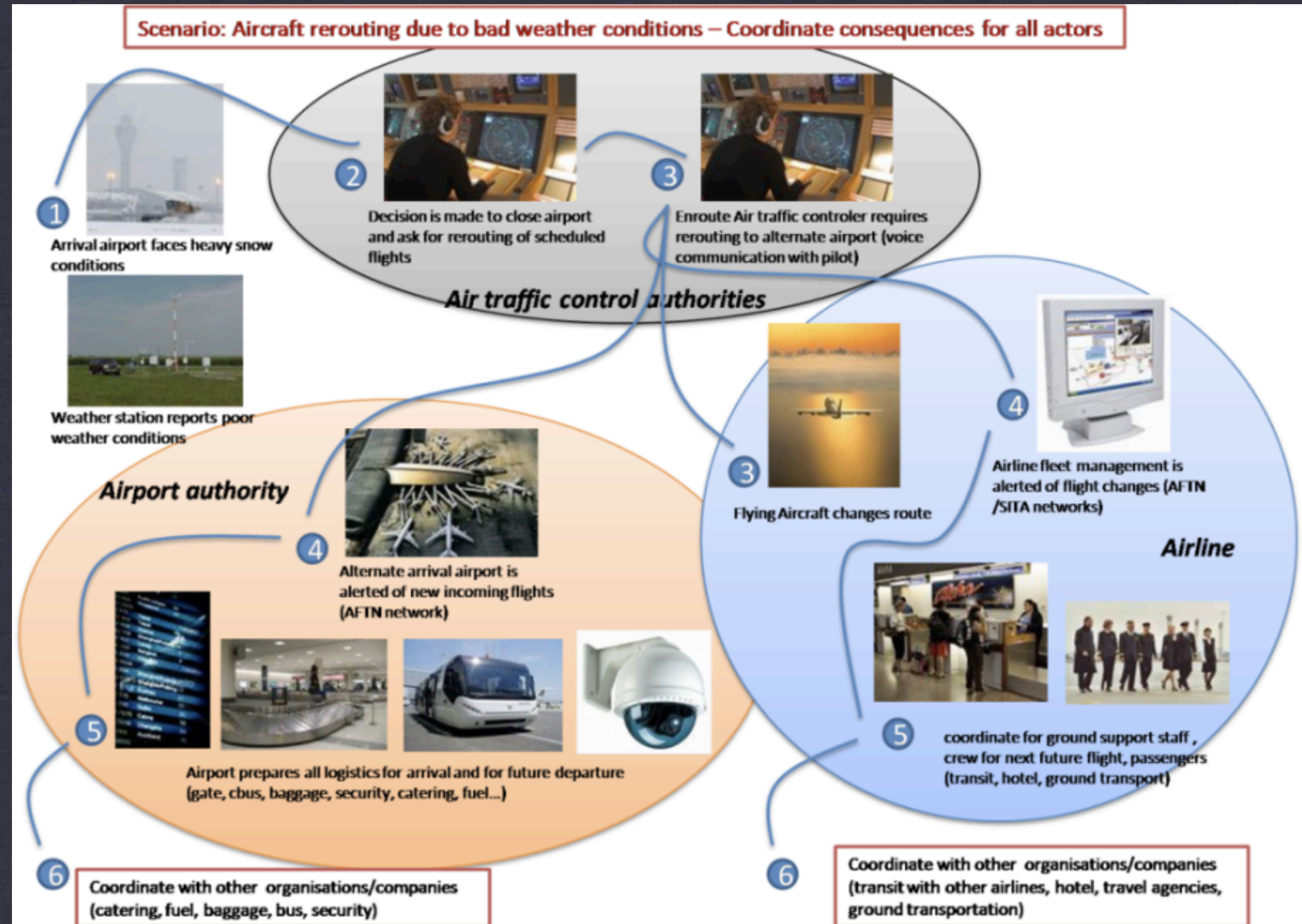
ORCHESTRATION



CHOREOGRAPHY

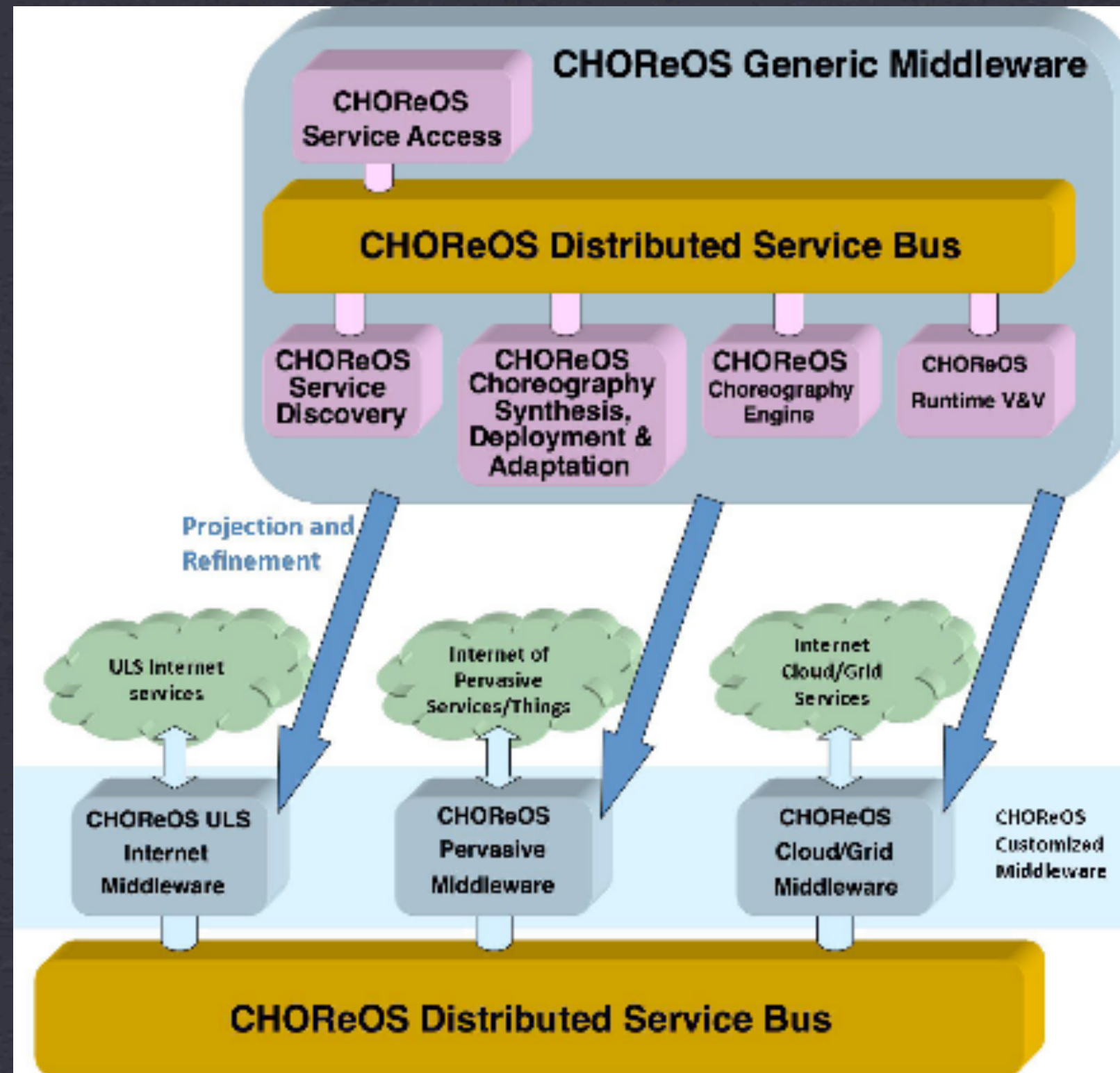
APPROACHES TO WEB SERVICE COMPOSITION

EXAMPLE CHOREOGRAPHY: AIRCRAFT REROUTING



The Future Internet

- * Large-Scale Choreographies of the Future Internet will require adequate middleware support
- * We will base the implementation of our middleware on
 - * Distributed Service Bus
 - * Pervasive Middleware Technology
 - * Grid and Cloud Computing Technologies



CHOREOS GENERIC MIDDLEWARE

ARCHITECTURAL OVERVIEW

CHOReOS Middleware

- * CHOReOS Distributed Service Bus
 - * Based on PEtALS ESB - a highly scalable P2P-based Distributed Service Bus for PEtALS is in the works
 - * mappings/projections to other environments
- * Internet of Things
 - * Highly heterogeneous and dynamic network environment
 - * Ultra-large number of devices, possibly with limited resources
 - * OASIS Standard for Web Services on resource-constrained devices
 - * CHOReOS Middleware will account for these resource-constrained devices and the environment's high dynamics and heterogeneity, whenever possible in a standards-compliant way

CHOReOS and Cloud Computing

- * We intend to provide CHOReOS with the high-performance computing power available in Grid and Cloud Computing infrastructures
- * The computationally intensive tasks that will need to be performed to cope with the millions of users issuing thousands of simultaneous service requests to thousands of services will be processed by Grid and Cloud Services
- * This involves efforts in
 - * Software Architecture and Engineering
 - * Investigation of novel methods for creating, managing, and processing choreographies

Conclusion

- * Scalable Choreographies on the Future Internet calls for an integrated solution.
- * Our unified architecture will enable
 - * Service Provisioning for ultra-large number of Internet users based on Grid/Cloud technologies
 - * Networking a large number of heterogeneous services via ESB-based middleware
 - * Networking services from the Internet of Things based on middleware for pervasive networks