

FÓRUM Padrões OGC



Architecture

Luis Bermudez
Director Interoperability Certification
lbermudez@opengeospatial.org
May 31, 2011

Copyright OpenGeospatial Consortium 2012

Architecture

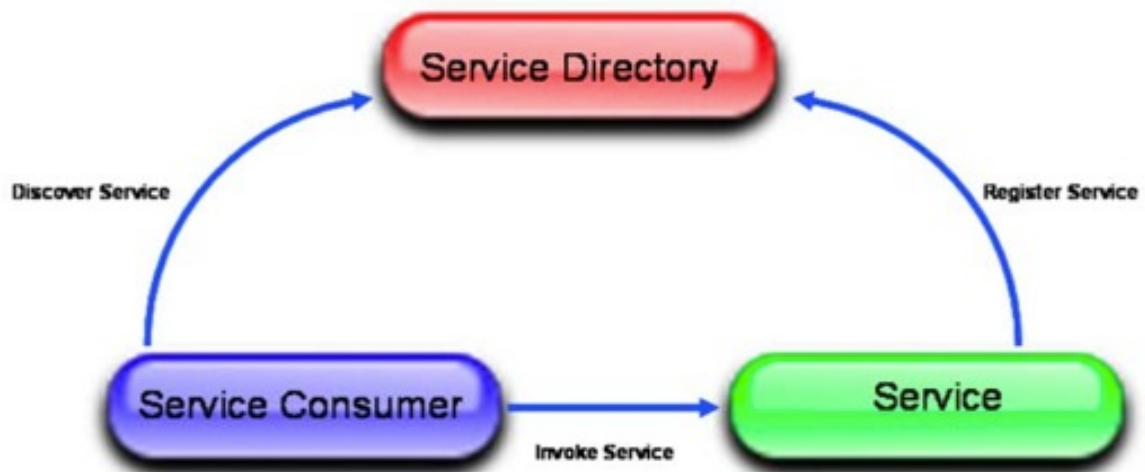
OGC Service Architecture

- * Principles
- * Multitier
- * Patterns
- * Architecture Examples
- * Designing
- * Water Information Systems Report

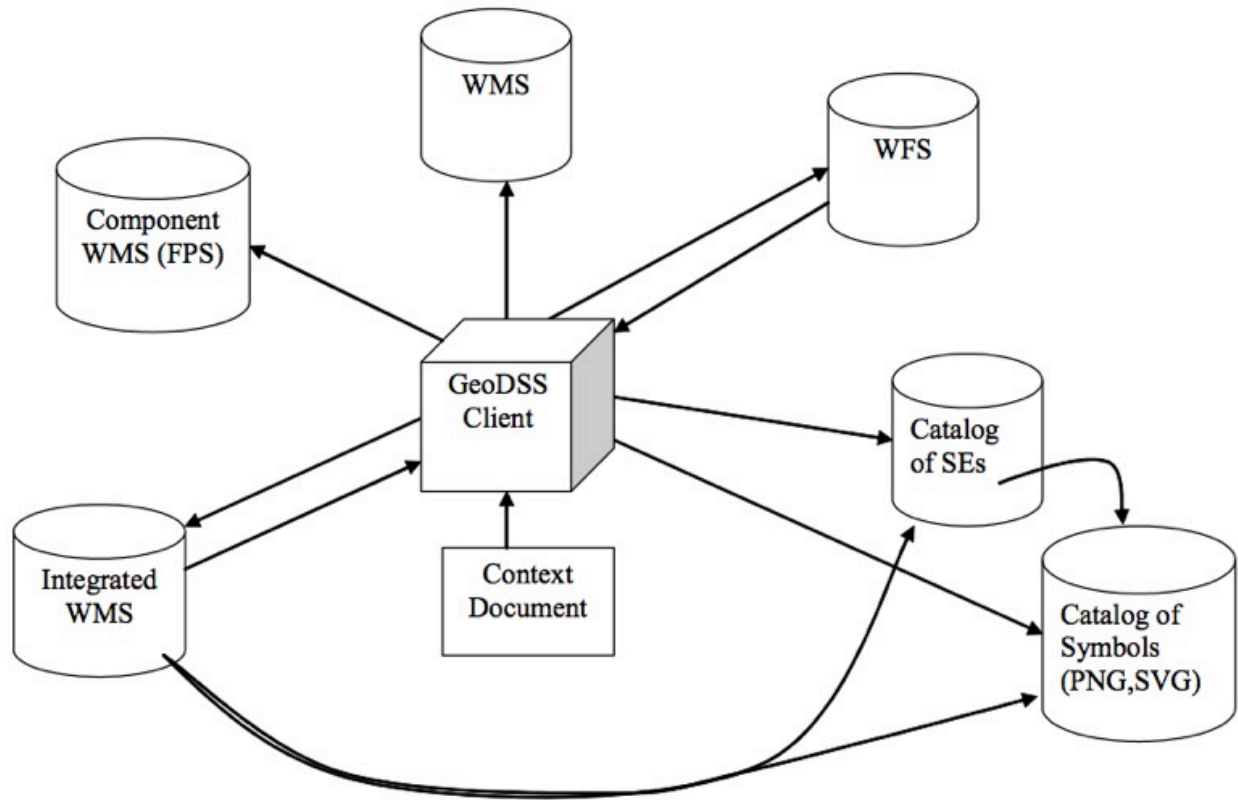
Principles of Service Architecture

- * Comprehensive Framework for Developers
- * Access and Process
- * Allow Variety of Sources
- * Allow generic computer interfaces
- * Within an Open Information Technology Environment

Publish Find Bind



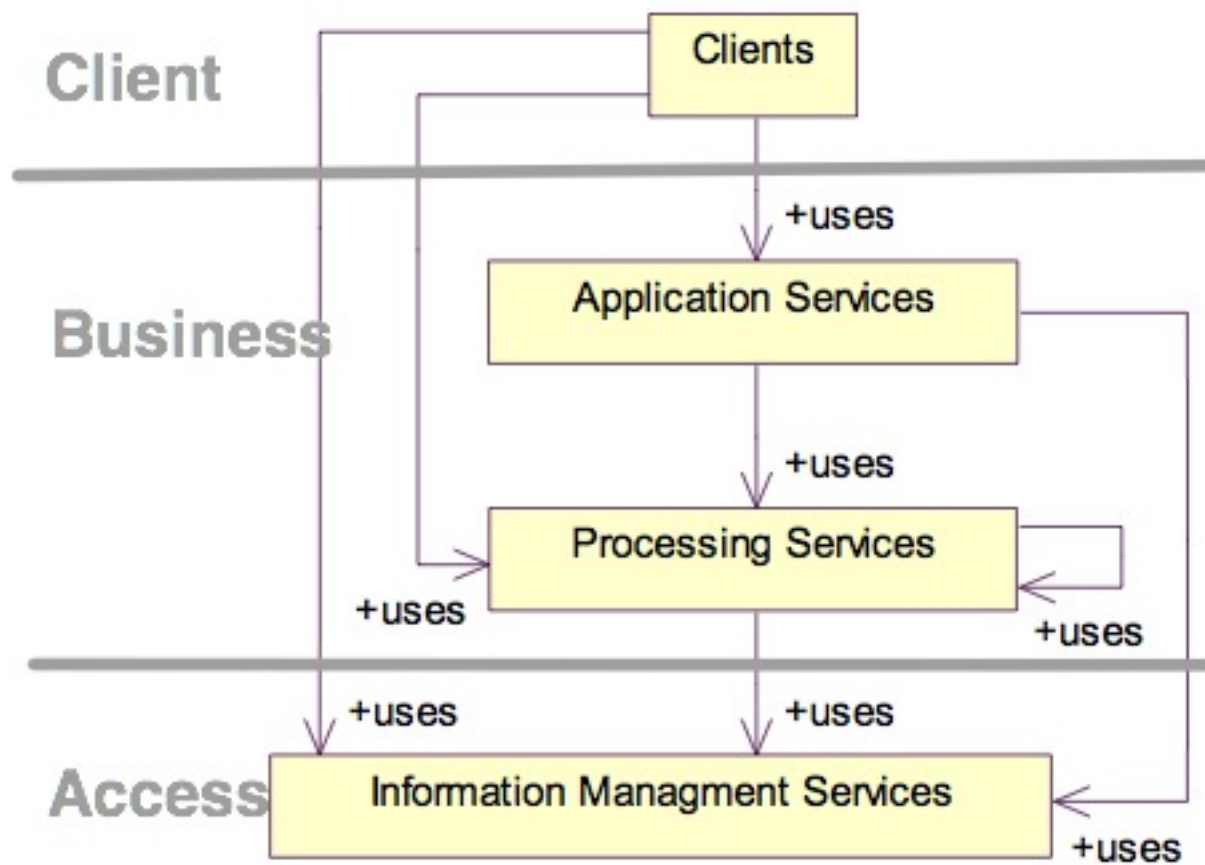
OGC Clients and Services



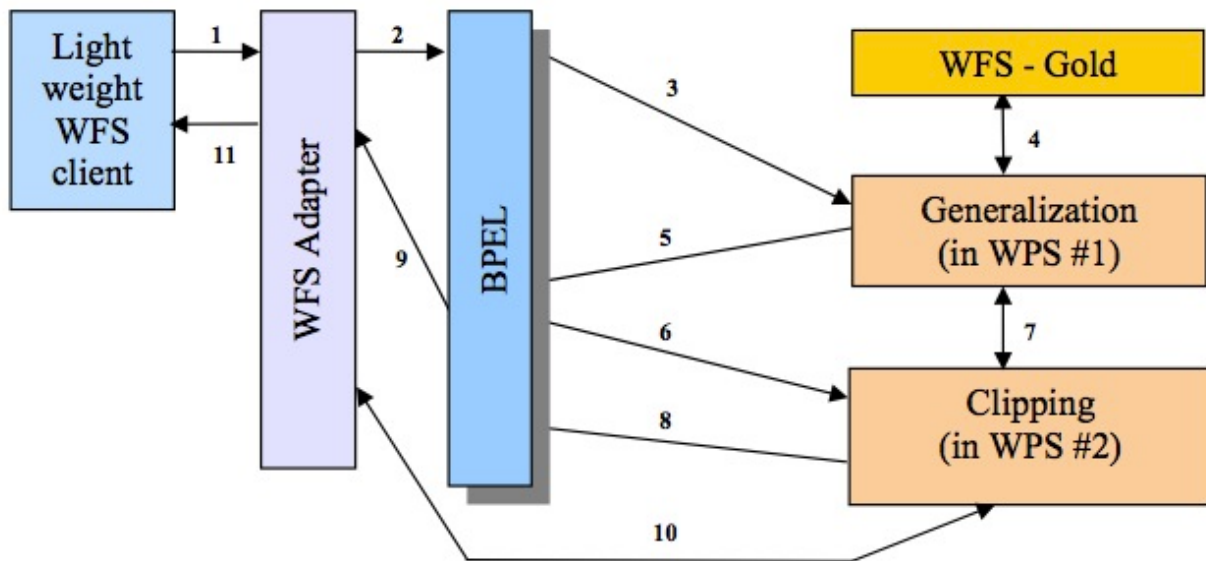
Multitier Architecture

- * Client Tier
- * Business Process Tier
- * Access Tier

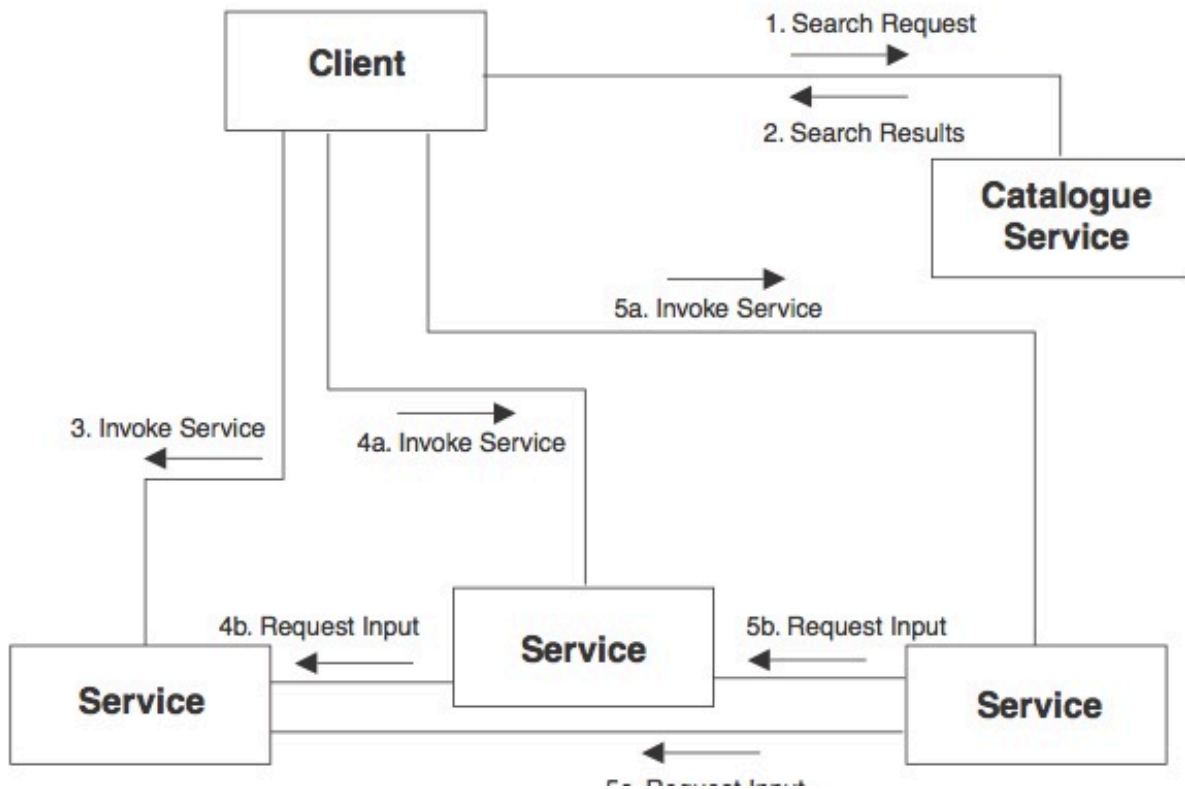
Service Tiers



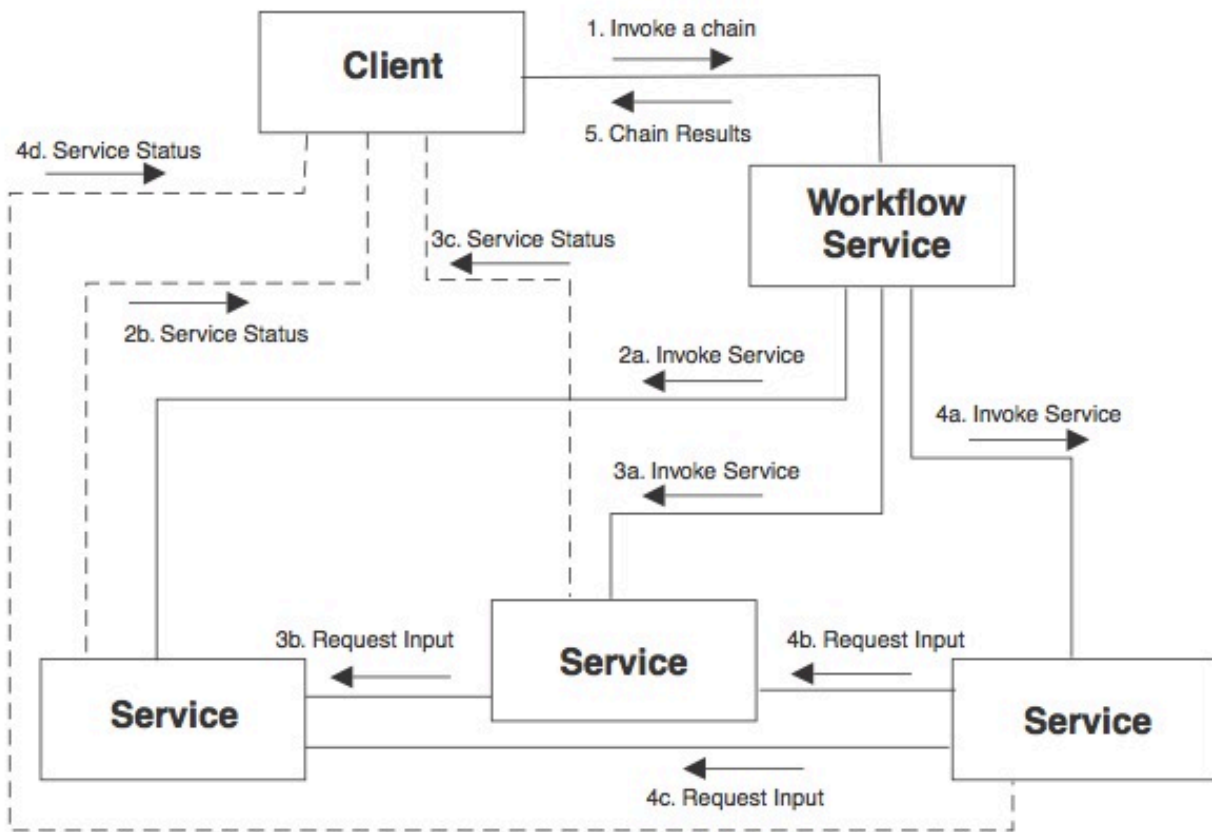
Support Service Chaining



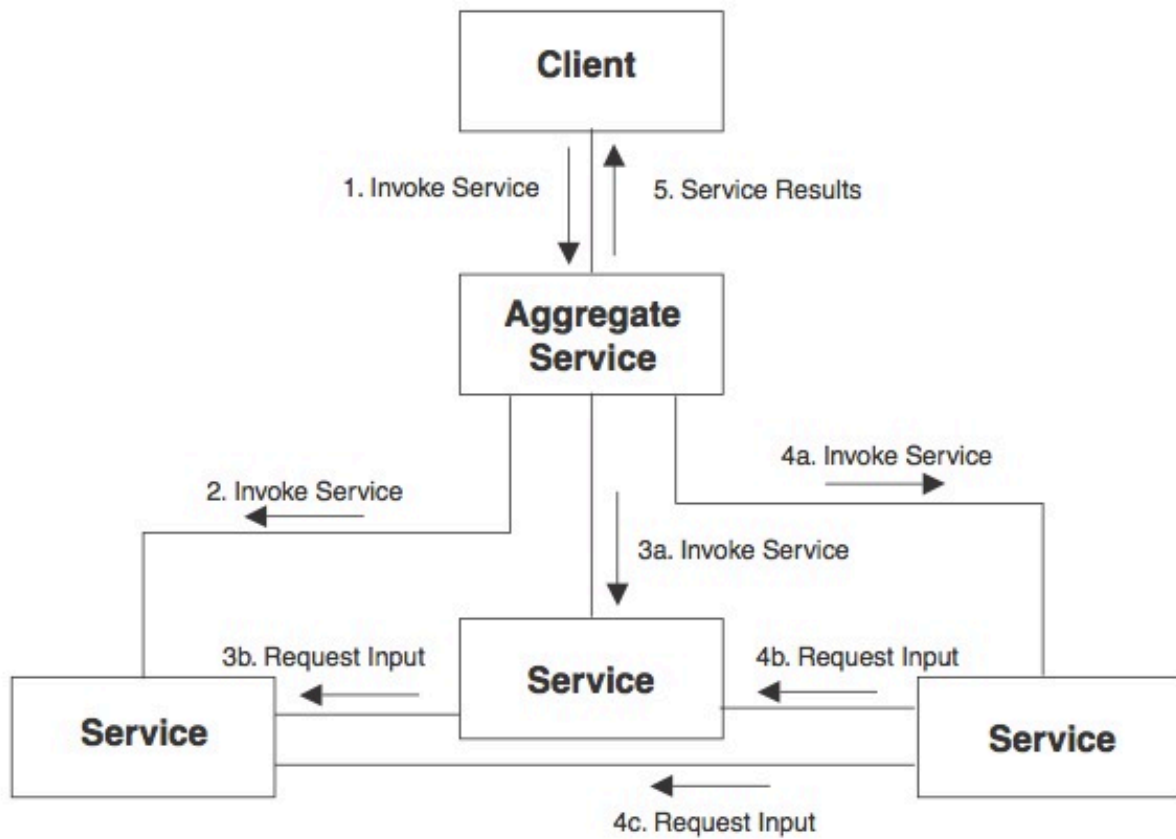
User defined (transparent) chaining



Translucent Chaining Pattern



Opaque Pattern



Geographic services taxonomy

- * human interaction services (clients)
- * model/information management services (WxS)
- * workflow/task management services (Chain, Subscription)
- * processing services
- * communication services (encoding, protocols)
- * system management services

Geographic services taxonomy

Processing services

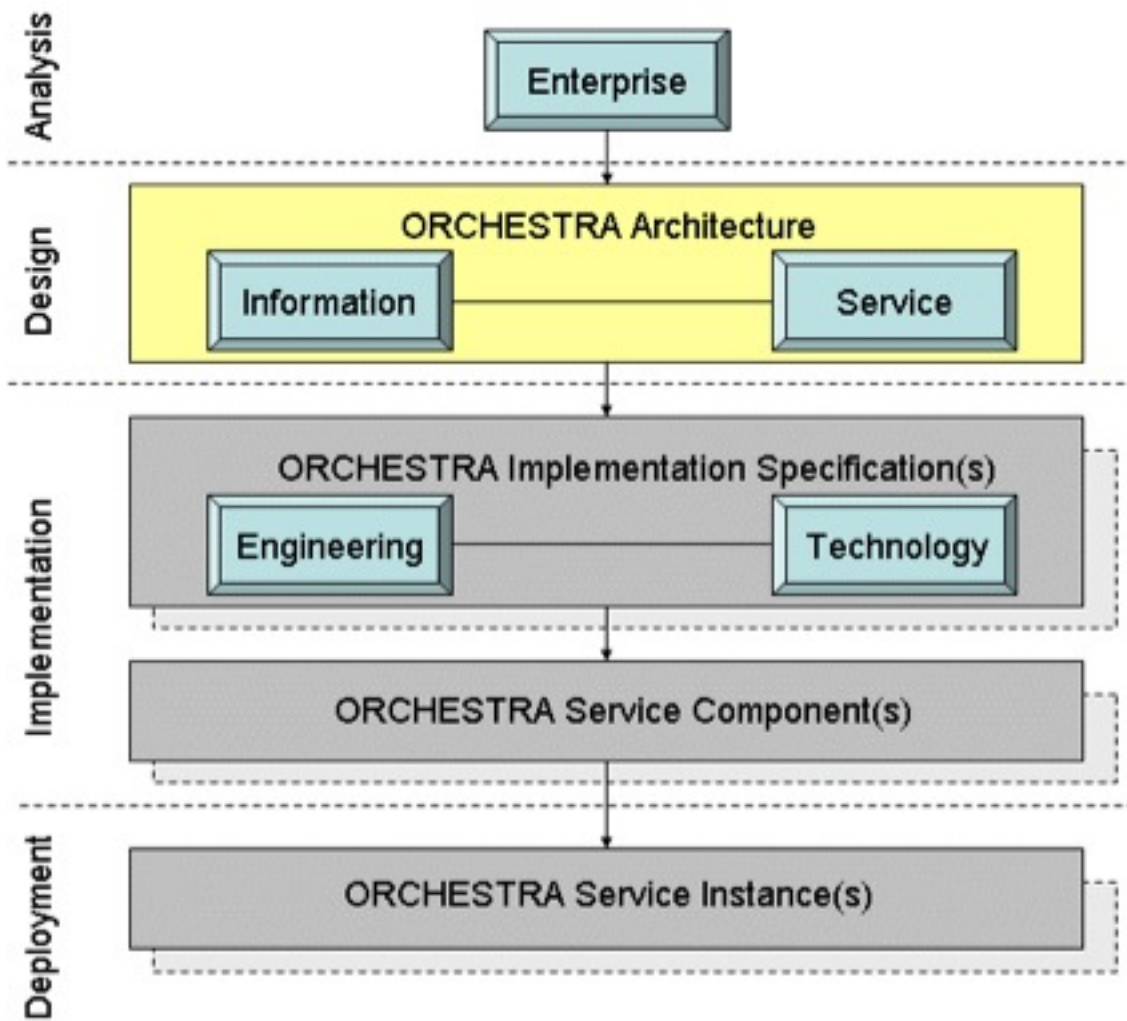
- * spatial (coordinate conversion)
- * thematic (classification)
- * temporal (subsetting)
- * metadata (annotations)

Orchestra

Open Architecture and Spatial Data Infrastructure for Risk Management

- * design and implementation of an open, service-oriented software architecture
- * contribution to overcome the interoperability problems
- * in the domain of multi-risk management.

Orchestra

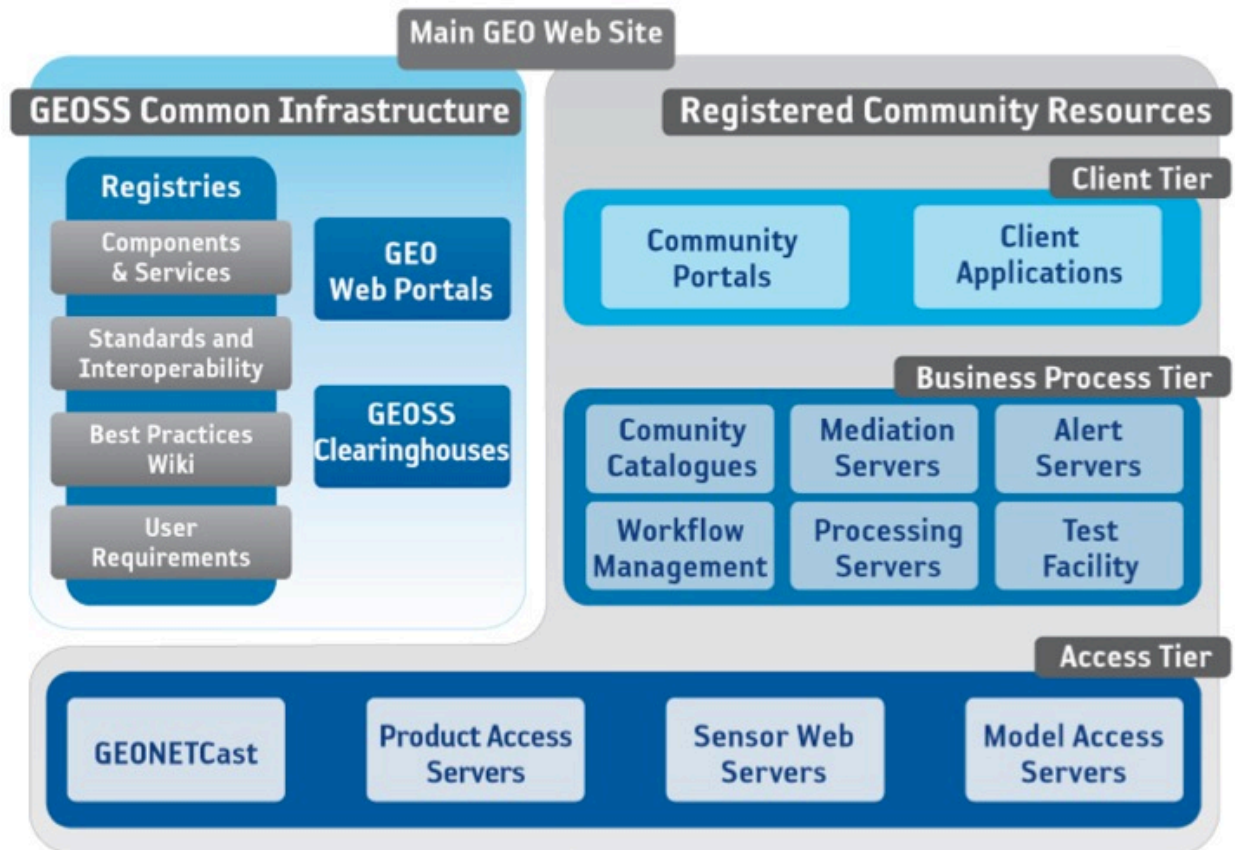


GIGAS

Promotes the coherent and interoperable development of:

- * GMES - Global Monitoring for Environment and Security
- * INSPIRE - The INfrastructure for SPatial InfoRmation in Europe
- * GEOSS - Global Earth Observation System of Systems

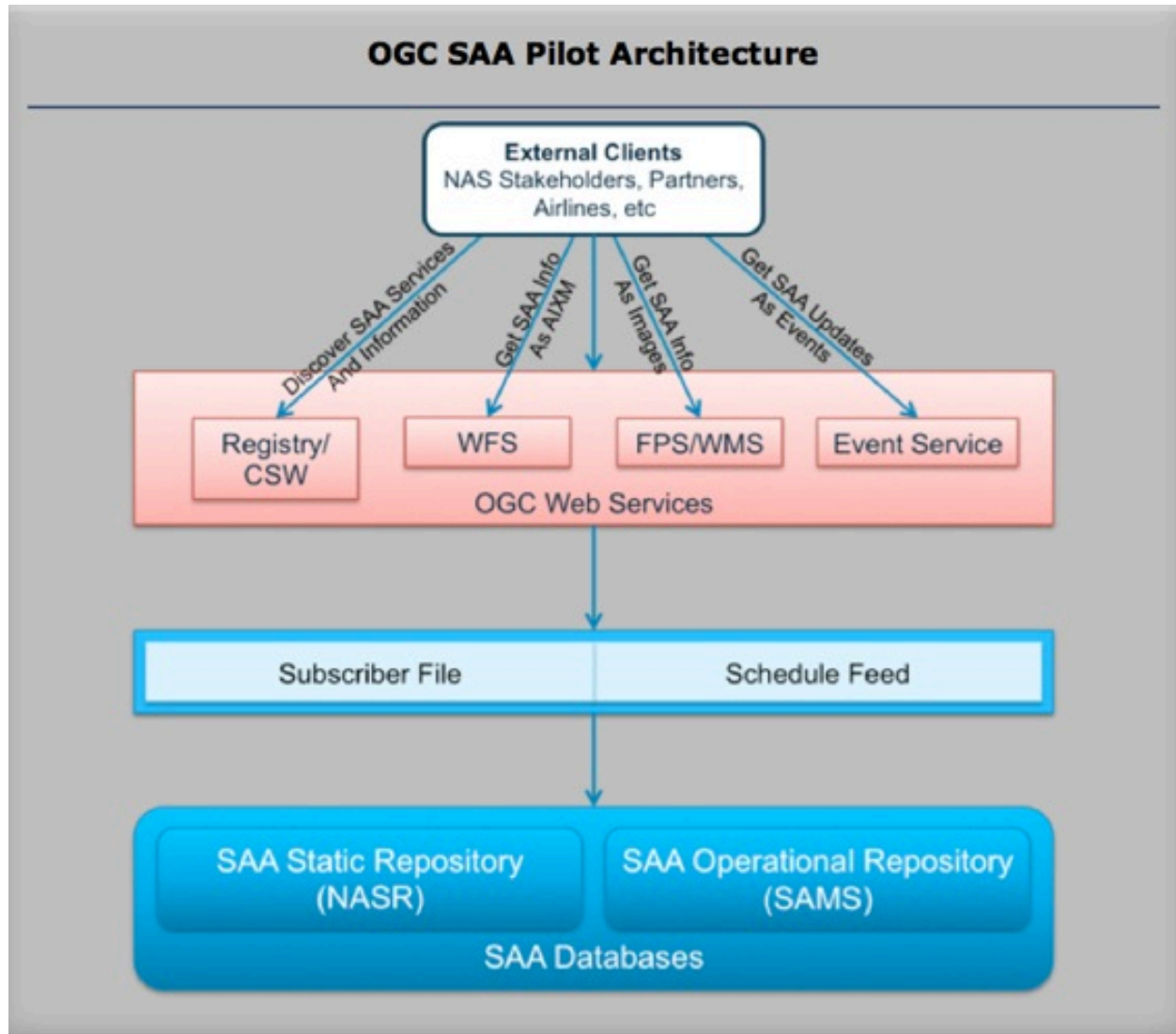
Multitier architectures



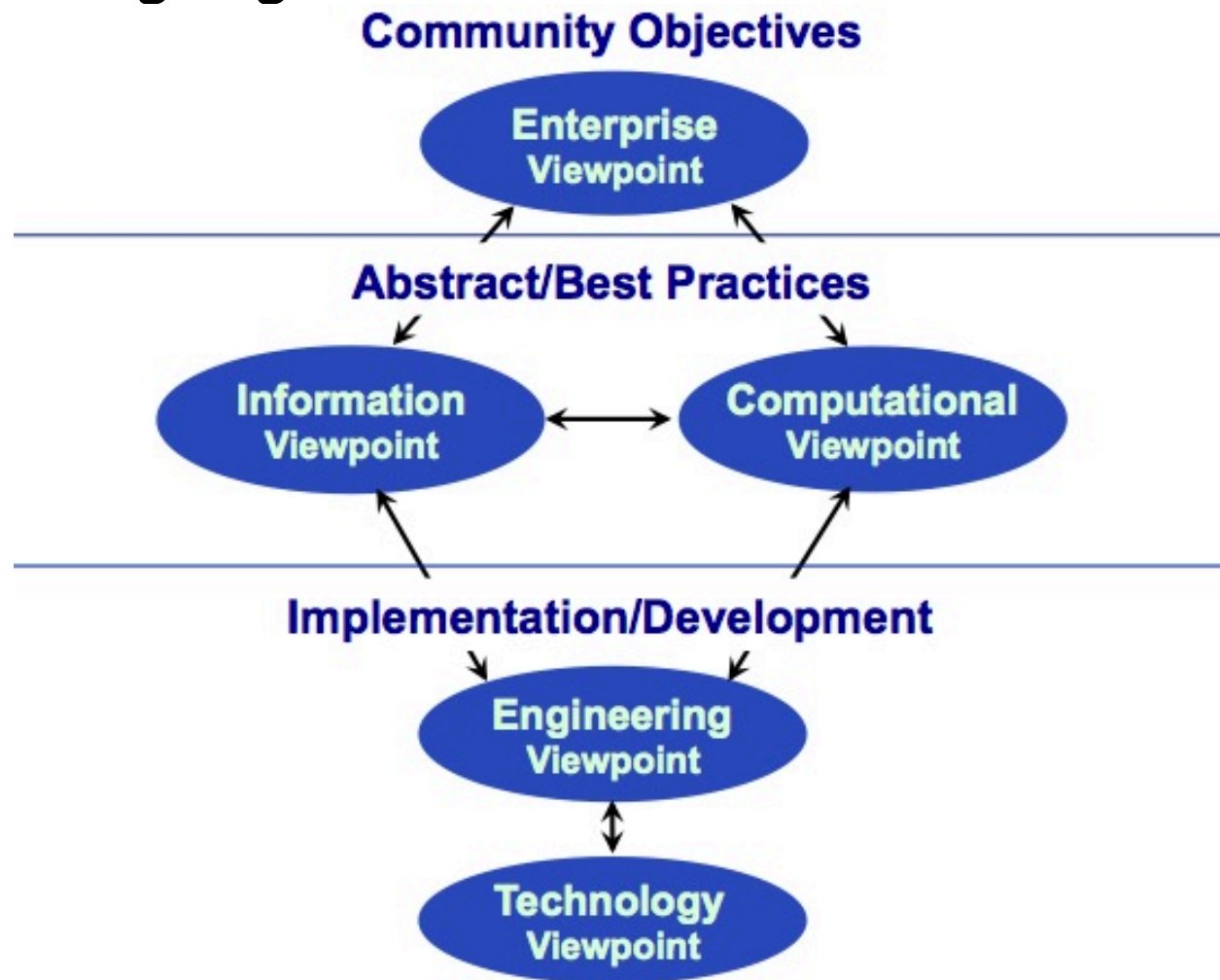
Aviation SAA Pilot

- * Disseminate SAA information (including updates) to users via OGC Web Services
- * Develop architecture that can accommodate future requirements
- * Expose SAA information services to the NAS stakeholders with emphasis on airlines to automate flight dispatch and planning
- * Expose SAA information services to DoD systems to automate scheduling and information synchronization

Aviation



Designing - RM ODP



Viewpoints in "Reference Model - Open Distributed Processing (RM-ODP)" ISO/IEC 10746