Architecture

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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

Light weight WFS client

WFS Adapter

BPEL

WFS - Gold

Generalization (in WPS #1)

Clipping (in WPS #2)
User defined (transparent) chaining

1. Search Request
2. Search Results
3. Invoke Service
4a. Invoke Service
4b. Request Input
5a. Invoke Service
5b. Request Input
5c. Request Input
Transluscent 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

Community Objectives

Enterprise Viewpoint

Abstract/Best Practices

Information Viewpoint  Computational Viewpoint

Implementation/Development

Engineering Viewpoint

Technology Viewpoint

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