

# Development of GIS Interoperability Infrastructure in Local Community Environment

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## Overview

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- Interoperability framework
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- Conclusion

## Introduction

- Integration of geodata from distributed and heterogeneous information sources and for interoperable GISs
- Interoperability advantages:
  - Quality improvement (availability of complete datasets)
  - Improvement of existing analysis and application of new analysis
  - Cost reduction (multiple use of existing GI sources)
  - Avoidance of redundant data and conflict raised by redundancy

## Related work



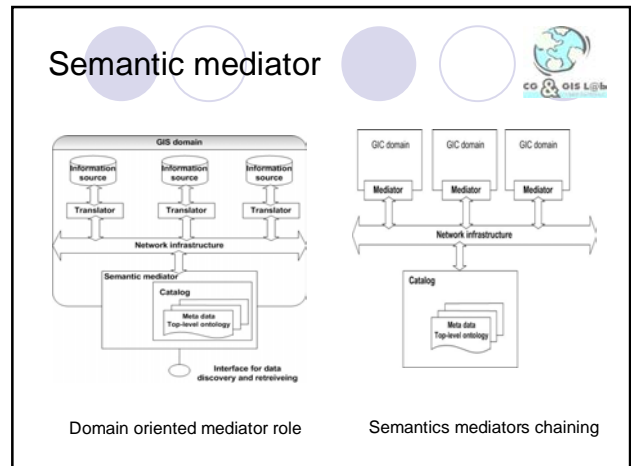
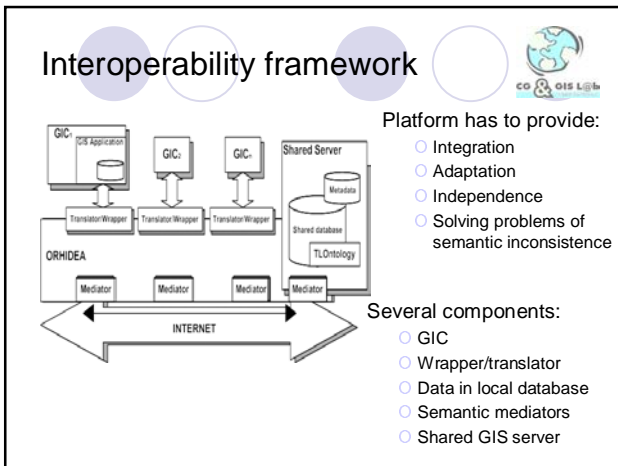
GIS in local community environment

## Related work

- OpenGIS Consortium – initiative for achieving GIS interoperability.
- Standardization cannot solve the whole problem.
- Making local geographic datasets available publicly and establishing interoperability framework over shared data interchange protocols.
- Mediator-based system is important for spatial data interoperability architecture.
- Ontologies as semantic translators.

## GeoNis project

- Project that has to provide infrastructure, platform and software tools for data interchange in local community environment.
- Research goals:
  - Defining interoperability architecture
  - Defining a methodology and software support
- Prerequisites:
  - Cooperation
  - Institutional willingness
  - Infrastructure
  - Communication protocols
  - Software tools



## Conclusion

- Being seen to "be interoperable" is becoming increasingly important to a wide range of organizations, including central and local government.
- In this new environment, the interoperable organizations will be visible, usable and customer focused, whilst still maintaining their own unique branding within the portals through which their content is available.
- Significance of our work is based on usefulness of GeoNis tools and components for realization of interoperable geospatial information nodes in local community organizations.
- A fully interoperable organization is able to maximize the value and reuse potential of information under its control.

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