Observations on the Proposed Standardised Cadastre Domain Model – Where Do We Go From Here?

Louis Hecht, USA
Presented by
Sam Bacharach, USA
Open Geospatial Consortium, Inc.

© 2004, Open Geospatial Consortium, Inc.
Agenda

• Introduction to OGC
• What OGC Does
• How that fits the Standardised Cadastre Domain Model (SCDM)
• The Way Forward
• Summary
What is the OGC?

• Open GIS Consortium (OGC)
  – Not-for-profit, international voluntary consensus standards organization
    • Incorporated in US, UK, Australia
  – 260+ industry, government, and university members
  – Class A Liaison of ISO TC 211 and CEN TC 287
  – Founded in 1994

OGC Mission
Our core mission is to deliver interface specifications that are openly available for global use.
The Open GIS Consortium Vision

A world in which everyone benefits from geographic information and services made available across any network, application, or platform.
The Growth of OGC

• Over 260 members worldwide – 30 countries & 5 continents
  – 90+ European members - 19 countries
  – 35+ Asia-Pacific members - Japan, Republic of Korea, Australia, China, and Thailand
• Fourteen approved, publicly available Implementation Specifications
  – Two ISO approved, one close, up to four in work
• Broad participation with other industry and international standards organizations – OMG, OMA, OASIS, W3C
• 30+ candidate Implementation Specifications in work
• OGC Reference Model defines interoperable geo architecture
• Rapidly growing list of vendor implementations
What OGC Does: provides interoperability

- OpenGIS Specifications have been agreed to by a broad swath of the entire community and are supported by most of the geoprocessing software vendors.

- OpenGIS links geographic data with mainstream IT... via the geospatial architecture in which geospatial components from multiple sources can plug-and-play through standard interfaces.

- OpenGIS maintains a leading technical architecture made up of the suite of interfaces for the benefit of the industry and its customers and works to minimize greed, parochialism, and lethargy in the market.

- Vendor implementation in products enables you, the customer, to directly access and use data produced by programs from many vendors -- not just one.
How that fits the SCDM

• SCDM provides Cadastre Community consensus of what data needs to be captured and shared
  – Attributes of a parcel
  – Geometry of a parcel
    • Accuracy
    • Data type – point, line area
• OGC provides proven way to make that data model work in a computer processing system
• Geography Markup Language (GML) encoding of XML that describes the features and geometry of the cadastral model
• Software providers then use OGC compliant GML to share data amongst their different packages
How it Works

- Cadastre UML Model
- Country Information Requirements
- UML to GML Application Schema (UGAS) Tool
- Country Specific XML/GML Application Schema
The Way Forward

• Complete the Standardised Cadastre Domain Model
• Design business architecture around open, industry, information technology consensus standards
  – OGC IS and GML (XML), SOAP, WSDL, TCP/IP
  – Model for how disparate entities interact
    • Think 50 hertz, 220 volt electric power grid
• Create GML Application Schema of SCDM
  – OGC Europe can assist
• Challenge industry to provide applications that use this GML (XML) application schema to share with one another
Summary

• OGC has 10 years and many successes under its belt in the design and standardisation of internationally approved, consensus industry specifications
• SCDM is an absolutely necessary, very important part of the process
  – It is impossible to meaningfully share data you do not understand
• Next steps are completion of SCDM and creation of a GML (XML) application of the SCDM
• Challenge GIS industry
  – Open, interoperable solutions are the only acceptable answer to your needs