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Open Forum for Standards Developers
June 20, 2007

Making Standards Relevant to User Requirements

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OGC’s Approach to Advancing Interoperability

- **Interoperability Program (IP)**
  A global, innovative, rapid hands-on prototyping and testing program designed to accelerate interface development and validation, and to bring interoperability to the market.

- **Specification Development Program**
  OGC’s Technical and Planning Committees support a consensus standards process similar to other industry consortia.

- **Outreach and Communications Program**
  Education and training, encourage take up of OGC specifications, business development, communications programs.
OGC’s Iterative Development Yields Tested Specifications

- Standards-based Commercial Off the Shelf
- OGC's Iterative Development Yields Tested Specifications
- Draft Specifications
- Adopted Specifications
- Prototype Implementations
- Interoperability Program
- Holes and Enhancements
- Outreach Program
- Specification Program
- SCOTS* Implementations

*Standards-based Commercial Off the Shelf
The OGC Interoperability Program

- Global, innovative, collaborative, hands-on engineering and testing program to draft, test and validate specifications for consideration by OGC Technical Committee.

- Delivers:
  - Candidate specifications to the Specification Program
  - Product implementations that use these candidate standards
  - Demonstrated capability based on real work business cases.

- Sponsors and Participants work together.
  - Sponsors provide requirements, use / business cases and funding.
  - Participants work with sponsors to define and/or refine OGC interface specifications to solve a given interoperability problem.
Types of OGC Interoperability Program Initiatives

- **Testbeds** provide an environment for fast-paced, multi-vendor collaborative efforts to define, design, develop, and test candidate interface and encoding specifications. The resulting draft specifications are then reviewed, revised, and, potentially, approved in the OGC Specification Program.

- **Interoperability Experiments** are brief, low overhead, structured and approved initiatives led and executed by OGC members to achieve specific technical objectives that further the OGC Technical Baseline.

- **Pilot Projects** apply and test OpenGIS® Specifications in real world applications using standards-based commercial off-the-shelf (SCOTS) products that implement OpenGIS Specifications. Pilot projects are designed to help users understand how to best implement interoperable geoprocessing that meets their requirements for application, spatial data, and geoprocessing service sharing.
OGC Interoperability Program

Types of Interoperability Program Initiatives

- Specification Program
- Testbed
- Experiment
- Pilot
- OGC Network

Technology Maturation

Specifications
Implementations
Demonstrations
Roles in OGC Interoperability Program Initiatives

- Initiative **Sponsors** (OGC Members) work with a team of OGC staff and technical experts to document interoperability requirements. The process includes the development of an initiative's use cases, vision, technology objectives, and timeline. Sponsors contribute resources – funding, personnel, facilities, etc.

- In response to the sponsors’ requirements, Initiative **Participants**, mainly technology providers, establish specific technical requirements for specification development (or enhancement) and determine the scope and agenda. Multi-vendor participant teams develop and document the prototype interfaces, encodings, etc. and perform other technical tasks.

- **OGC staff** facilitates the overall process, working with the members to: publish Requests for Technology (RFTs), Requests for Proposals (RFPs), and Calls for Participation (CFPs); manage initiatives; and liaise with other industry consortia and de jure standards organizations.
The OGC Testbed Approach

OGC has successfully managed over 30 initiatives since 1999. Most OGC standards are advanced through this process.

OGC staff manages the entire process with policies and procedures proven to produce results.

*RFQ/CFP = Request for Quotation / Call for Participation
OGC Interoperability Program Benefits

- As a Sponsor, an OGC Member helps:
  - Prioritize and accelerate standards development of importance to its organization, partners and customers.
  - Align industry to cooperatively advance standards to meet specific business needs.

- As a Participant, an OGC Member…
  - Builds early knowledge and experience with developing standards.
  - Is among the first to make new standards available in the market as part of its technology solutions.
  - Gains acknowledgement of and visibility with organizations Sponsoring initiative requirements.
  - Develops and validates emerging standards in the context of sponsor business cases and scenarios
The OGC Interoperability Program – Major Benefits to Sponsors

- Ability to Determine Market Interest – OGC’s RFQ / RFT process validates the willingness of industry to address specific interoperability issues requiring new standards.
- Rapid prototype development yields workable interface specifications in 4-6 months vice years for traditional standards processes.
- Vendors test, validate and demonstrate interface integrity by implementing candidate specifications in their products, reducing the risk that a proposed standard will not perform as intended.
- Accelerated process encourages rapid time to market for standards-based solutions – OGC member vendors are typically early adopters of new specifications.
- Participants in OGC testbeds and pilot initiatives contribute more in in-kind contributions (labor, software, infrastructure etc.) than is provided in Sponsor funding – 2-3 times every Euro or Dollar of funding.
OGC Interoperability Program – Benefits to Participants

- Opportunity to cooperatively develop open standards.
- Early insight into user requirements for interoperability, and early experience with and influence in developing standards in the context of user business cases.
- Bring new products and services using OpenGIS specifications into the marketplace earlier.
- Reduce development costs / risks and lead time for developing interfaces (community-wide cost sharing).
- Broaden market reach via products that implement OpenGIS specifications.
Additional Benefits

- Testbeds and pilots help to reduce the risk associated with an emerging standard by…
  - Creating reference implementations that use draft standards.
  - Validating these technologies with real world business cases / scenarios.

- Testbed results and demonstrations are useful in:
  - Assessing organizational efficiency and effectiveness gains associated with the standard
  - As an education tool to reinforce the value of a new standard with organizational leadership and staff.
OGC Interoperability Program

- A proven process to rapidly develop, test and validate new standards based on real world use cases identified by OGC members.
- An effective way for members to quickly align industry to advance standards to meet priority needs.
- An efficient and competitive process, often yielding a high level of industry participation and cooperation.
- A repeatable process – over 30 initiatives have been successfully conducted using proven policies and procedures.
- A mechanism to advance standards to address European program business cases, requirements and priorities.
Key OGC Interoperability Program
Resources / References

- Overview of OGC’s Interoperability Program:
  - http://www.opengeospatial.org/ogc/programs/ip

- Interoperability Program Policies and Procedures
  - http://www.opengeospatial.org/ogc/policies/ippp

- Active Interoperability Program initiatives:
  - http://www.opengeospatial.org/projects/initiatives/active

- Past initiatives:
  - http://www.opengeospatial.org/projects/initiatives/past

- Video Summary of latest OGC Web Services 4 (OWS-4) Testbed: