

Implementing OGC Compliance

Solutions Paper

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Photogrammetry, spatial modeling, remote sensing, 3D/4D simulation, geospatial collaboration, feature extraction, imagery analysis and exploitation. For many, it is unclear how these disciplines and domains relate to Open Geospatial Consortium (OGC) web services - let alone how they might benefit from OGC interoperability. In 2007, ERDAS made the strategic decision to expand support for its enterprise customers by acquiring IONIC, the leader in OGC compliant enterprise software. Together, the combined company has discovered how powerful OGC web services can be, by transforming and integrating heritage capabilities into the enterprise.

Without standardization, these applications operate independently, segmenting the data and limiting organizations to only authoring within a single software package. With the implementation of OGC standards, organizations are empowered to author, manage, connect and deliver. OGC interoperability transforms data into information, providing opportunities to share this information internally and externally in a secure environment, through a wide variety of applications. Driven by OGC compliance, ERDAS provides true interoperability, ensuring increased value and true versatility for customers.

OGC Compliance Sets the Standard

In the geospatial community, OGC web service specifications are the only meaningful implementation of web services. Anyone using the Web Service Description Language (WSDL), the Simple Object Access Protocol (SOAP), or ebXML are implementing web services. However, the world of interoperable web mapping requires self-describing web services that enable run-time binding. This means that applications must dynamically negotiate a connection to a remote web service simply by accessing (via URL) the standard ISO19119 XML capabilities document. SOAP, WSDL, and ebXML do not accomplish this alone. OGC interfaces do accomplish this, and are harmonizing with SOAP, WSDL and ebXML through liaison relationships with their respective standards organizations.

The OGC has over 250 member organizations from all over the world, including the major players in GIS and web services such as ERDAS, Google, Intergraph, MapInfo, Autodesk, ESRI, Oracle, PCI Geomatics, IBM, Microsoft and SUN. Additionally, the OGC also includes major system integrators such as SAIC, Lockheed Martin, BAE, Northrop Grumman, Raytheon, SRA International, etc; nearly every US federal agency; and government and NGO agencies from six different continents. In this context, the notion that adhering to any single vendor's proprietary 'web services' interfaces will solve consumers' business problems is absurd – OGC standards are paramount.

With OGC Compliance, ERDAS Provides More

ERDAS recognizes that OGC interoperability empowers users, making their systems more flexible, driving ROI for their enterprise. Recently, ERDAS began showcasing several OGC Service Oriented Architecture (SOA) based-solutions. The server side of these SOA solutions is comprised of ERDAS Catalog, ERDAS Enterprise, ERDAS Image Archive and ERDAS Web, which implement the OGC specification baseline:

- The Web Map Service interface with support for Style Layer Descriptor requests (WMS-SLD), with the additional ability to proxy (or cascade) “n” remote WMS resources
- The transactional Web Feature Service (WFS-T) interface, with support for the Geography Markup Language (GML) 2.0 and 3.0 (base)
- ISO19115/19139 metadata management

ERDAS’ managing and delivering solutions offer a seamless interoperable spatial data infrastructure to securely discover, catalog and serve geospatial information over the Internet. These products are built upon a comprehensive, service-oriented architecture with a highly developed open standards-based JAVA/JSEE platform and development framework (API).

A component of ERDAS’ delivery solutions, ERDAS Web is a specialized server-side product providing out-of-the-box OGC compliant web services (WMS, WFS, WCS) for serving geospatial data. ERDAS Web solves the problem of geospatial data being confined to a specific data store or technology, enabling the use and exchange of this data with any other OGC compliant data over the web.

Optimized for WFS (feature) support for Oracle Spatial, ERDAS Web also supports ArcSDE (on Oracle or SQL Server), PostgreSQL/PostGIS, ODBC/JDBC sources, Shapefiles and more. Additionally, ERDAS Web dynamically publishes large file system archives imagery, including GeoTIFF - enabling massive scalability without compression.

Providing complete interoperability, any vendor’s client (thick or thin) is capable of accessing ERDAS Web servlet interfaces if they adhere to OGC specifications. With the most comprehensive OGC compliance, ERDAS’ solutions seamlessly connect to a broad spectrum of geospatial tools, including ESRI’s Arc4Java, Intergraph’s GeoMedia, MapInfo’s MIPro 7.5, as well as open source toolkits such as GeoTools. With a rich history, ERDAS is fully implementing OGC standards and leading the industry with a growing portfolio of interoperable geospatial solutions to meet customer needs in today’s enterprise environment.