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**OGC Engineering Services**

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OGC Engineering Services

# 1 Introduction

This document is part of the Interoperability Program policies and procedures. An overview of the OGC Interoperability Program is provided in document “[The OGC Interoperability Program](https://portal.opengeospatial.org/files/40805)” (05-127r7). Following an orthogonal approach, this document defines Engineering Services offered by OGC, which can instantiated through different types of activities and initiatives. In addition to the activities defined in this document, the following documents discuss policies and procedures for other Interoperability Program activities:

* OGC-IP Concept Development Policies and Procedures (05-128r1)
* OGC Interoperability Testbed Policies and Procedures (05-129r1)
* OGC Interoperability Experiment Policies and Procedures (05-130r3)
* OGC Interoperability Pilot Policies and Procedures (05-131r1)
* OGC Networks Policies and Procedures (05-132r1)

The services defined in this document are offered by OGC[[1]](#footnote-1). In principle, the services serve two main purposes: First, innovation accelerators for OGC specifications, and second to catalyze adoption by other organizations with the goal to improve understanding and use of OGC standards and technologies and increased demand for products offered by OGC member organizations. The first supports the development of OGC standards and technologies and includes dissemination and exploitation activities. The latter help other organizations to optimize their business directly by offering customized consultancy services. The purpose of this policy is to further the use of OGC standards and benefit the OGC membership.

All services are clearly defined in subsequent chapters. Each chapter includes a detailed description of the services types, general principles of operation, and a section on potential risks and opportunities. The services discussion is complemented with an orthogonal roles discussion, which describes the various roles OGC can play. Chapter 3 of this document details OGC principles of operation designed to best advance OGC standards and compliment our members’ activities.

# 2 Engineering Services

As a voluntary consensus standards organization, the OGC is uniquely positioned to provide vendor and content neutral services to organizations that wish to implement open, standards-based technologies to address their business needs. OGC Engineering Services can assist organizations in understanding how to apply the OGC interoperability framework, drawing upon the OGC Reference Model (ORM), the OGC Technical Baseline (OTB), and OGC Standards. Engineering Services facilitate how an interoperability framework and/or architecture based on open standards can best fit any organization’s business needs.

It allows organizations to receive support in the business of evaluating latest technological trends, optimizing software architectures, setting up of large enterprise systems, or performing compliance tests. These services also help to stimulate demand for standards-based interoperable technologies offered by the OGC members and others in the technology marketplace.

At the same time, OGC interoperability engineering services ensure strong links with the standards program and serve as the innovation hub of OGC technologies and domain-specific and domain-independent specifications.

OGC works with the Engineering Services customers to position OGC standards and related best practices in the technology policy, development and acquisition programs.

## 2.1 Service Types

The OGC Engineering Services span a wide range of service types including administrative, organizational, research and development, and other consultancy services (e.g. on procurement language, compliance testing, legal aspects, etc.). The goals of those services are spread equally wide, from supporting OGC members to place their products on the market, to optimize an organization’s business by consulting on using interoperable architectures and products to improve and innovate OGC standards and technologies. They address the foundation of the OGC innovation process and serve at the same time as internal and external human capacity development services.

OGC specifications, in particular the non-abstract specifications, are subject to the typical rapid Internet innovation cycles. As new technologies, serialization models, tools, and (partly domain specific) best practices need to be incorporated into the OGC specification portfolio on a continuous basis, it is of overall importance that OGC is not only managing and accompanying these processes, but actively steering and supporting them. This is particularly important as a number of sponsors of OGC Interoperability Program activities request ideas on new development aspects or expect guidance on the exact definition of new work items. In addition, those research-oriented projects represent and implement a strong link between the interoperability program and the standards program.

The following types of Interoperability Engineering Services are offered:

1. ***Assessment, Analysis, and Feasibility Support:*** to include “As-Is” studies, requirements definition, business plans (including basic ROI statements related to the use of standards), use case modeling, analysis, and procurement readiness assessments. These services are focused on providing recommendations to reduce communication, processing and information distribution bottlenecks through application of standards and related best practices in technology policy, programs, procedures and acquisitions of OGC-compliant products.
2. ***Standards-based reference architecture design and documentation****:* These services define the organizational environment for standards and results in recommended steps and well-defined profiles needed to expand and sustain an organization’s interoperability capacity. Employing a number of reference models and underlying methodologies (e.g. RM-ODP and functional equivalents), OGC communicates the Enterprise, Information, Engineering Technology and Computational viewpoints of recommended reference architecture.
3. ***Operation and / or enhancement of OGC online compliance facilities and compliance evaluation:*** These services offered as part of the compliance program help OGC members to optimize their compliance-testing environment and help detect compliance deficiencies within the organization or within the product portfolio of an organization.
4. ***Education and Outreach:*** These services include interoperability training for various target audiences, presentations and seminars at standards/interoperability conferences and symposiums, and support to public relations and communications programs related to the development and uptake of open standards.
5. ***Innovation & Research Services.*** Theseextend the “Assessment, Analysis, and Feasibility Support services” listed above (1). They are implemented through direct participation in research and development programs with the goal to enhance the OGC technology baseline, experiment with new technologies, and position OGC as an innovation hub within the international research & development community. These services help OGC members to develop sustainable products and ensure state of the art products for customers.

## 

## 2.2 Service Roles

The Engineering Services described above require a number of roles. These roles can be applied to any type of activity discussed in this document or any other activity defined in the Interoperability Program documents listed above. Engineering Services are usually executed in individual projects, always with the goal to further the use of OGC standards and benefit the OGC membership. A single project may make use of any number of roles. Whereas traditional interoperability program activities such as Testbeds probably include all roles within a single project, other projects such as research & development projects might make use of one specific or a few roles only.

## 2.2.1 Project Coordination

OGC coordinates the project as official project coordinator. OGC may decide to act as project coordinator on its own initiative, or can be approached by any OGC member to take on this role for any type of project activity. OGC is responsible to cover all aspects of project coordination. In addition, OGC offers services such as letter requests to OGC members. Those letter requests can be issued for various purposes, e.g. to find additional members to form project consortia when replying to open tenders or to identify participating organizations in OGC activities such as testbeds or pilots. The OGC reserves the right to select organizations responding to letter requests based on clearly defined and published criteria.

Taking this role allows OGC to organize internal activities, to learn about new trends in emerging markets, and to understand the requirements of particular domains.

## 2.2.2 Technical Coordination

OGC coordinates the technical developments within a project. The role requires a very good overview of all technical developments and a good understanding of state-of-the art approaches and trends. It helps OGC to understand the latest developments in terms of domain-specific research and development and connects with OGC members and external organizations on a technical level.

## 2.2.3 Architecture Development & Research

Performing this role, OGC works on architecture developments and specific research topics within projects. This role requires a very good technical expertise and skills in architecture design and documentation and a solid understanding of the latest technological trends, applications, tools, and products. This role strengthens the connection with the OGC Standards Program, as existing standards are tested and explored, and new requirements, ideas, and technologies are added to existing specifications. This role, which is applied in tight connection with OGC members, serves an OGC innovation purpose to ensure sustainable and forward-looking specifications, technologies, and standards.

## 2.2.4 Knowledge Transfer

This role focuses on knowledge transfer from OGC to other organizations. OGC makes its experiences and know-how available and helps other organizations to understand both details about OGC standards and technologies as well as general aspects of distributed computing, software architectures, compliance testing and other fields of expertise.

Playing this role allows other organizations to profit from the profound technical expertise of OGC and accelerates knowledge transfer among OGC members. This also helps organizations with strategy-formulation, enabling them to better gauge the trajectory and momentum of OGC standards and technologies.

## 2.2.5 Exploitation and Dissemination

OGC is continuously engaged in dissemination activities at various events and opportunities and can leverage its network for the benefit of other organizations. Using its wide field of contacts and engagements, OGC can help organizations to optimize their product and technology exploitation strategies and to disseminate (research) developments at various events. This role requires strong networks and connections into domains and communities and

adaptability to new domains and players.

# 3 General Principles of Operation

The OGC will follow principles of service engagement and operation as defined below:

1. OGC provides Engineering Services to all organizations, though some interoperability program activities are restricted to members of the consortium only.
2. OGC provides Engineering Services in a non-exclusive and non-discriminatory manner.
3. OGC will notify the membership when a project exists as necessary, to avoid conflict of interest in engineering service provision as long as a contract does not require confidentiality. Such release may or may not include the organization or work details.
4. OGC will inform the Board of Directors Executive Committee, under Non-Disclosure Agreement, of planned/active Engineering Services.
5. Engineering Services will not involve in any assessment or recommendations regarding specific products and services.
6. As required, personnel involved in Engineering Services will sign non-disclosure agreements with contracting organizations to protect their intellectual property rights and trade secrets.

OGC subsidiaries in Europe (OGC-E) and Australasia (OGC-A) also apply these principles according to the laws, customs and procedures of their respective regions.

1. For consistency, the acronym OGC is used throughout the text, even though most European activities are performed through Open Geospatial Consortium Europe (OGC-E). [↑](#footnote-ref-1)