**Application by the Open Grid Forum for Recognition as a   
Publicly Available Specification Submitter to ISO/IEC JTC1**

In this application for recognition as a Publicly Available Specifications (PAS) submitter, the Open Grid Forum (OGF) is responding to the criteria from JTC1 to provide the following:

* the overall scope of the application
* the initial PAS submissions which are planned to be submitted, together with their scope
* the criteria of sub clause 7.3 of [JTC 1 Standing Document: Guide to the Transposition of Publicly Available Specifications into International Standards](https://jtc1info.org/wp-content/uploads/2022/01/SD-9-Guide-to-the-Transposition-of-PAS-2021.pdf).

**Overall scope of this application**

The OGF applies for recognition as an organization that has developed a number of well sourced and well-adopted informational, experimental, community practice, and recommendation-level documents and standard specifications applicable to the fields of distributed grid and cloud computing. The OGF intends to become a PAS submitter as detailed below, starting with two specific submissions.

**Identification of the initial PAS(s) which are planned to be submitted**

If approved, the OGF's first PAS submissions will be the Data Format Description Language v1.0 Specification (DFDL) and the Web Services Agreement Specification (WS-Agreement) and related specifications.

DFDL is the specification of a definition of a standard Data Format Description Language. This language allows description of text, dense binary, and legacy data formats in a vendor-neutral declarative manner. DFDL is an extension to the XML Schema Description Language (XSD). The specification document can be found at <http://www.ogf.org/documents/GFD.240.pdf>.

WS-Agreement is the specification of a Web Services protocol for establishing agreement between two parties, such as between a service provider and consumer, using an extensible XML language for specifying the nature of the agreement, and agreement templates to facilitate discovery of compatible agreement parties. The specification consists of three partsn which may be used in a composable manner: a schema for specifying an agreement, a schema for specifying an agreement template, and a set of port types and operations for managing agreement life-cycle, including creation, expiration, and monitoring of agreement states. The specification document can be found at <http://www.ogf.org/documents/GFD.192.pdf>.

Both specifications fill a gap in their respective area which was not addressed by any other SDO. W3C, for example, has developed specifications for some of the basic protocols and technologies for Web Services which are used in WS-Agreement but did not address a protocol for establishing web services-based agreements between different parties of service providers and service consumers. OASIS, for example, provides with TOSCA a specification for enhancing the portability and operational management of cloud and other types of applications and services across their entire lifecycle which does not support the negotiation of terms for using these applications and services.

Future submissions of OGF recommendations will most likely be dependent on the success of these first two submissions.

**Specific responses to sub-clause 7.3: organization related criteria**

The following paragraphs are organized following the clause numbering in section 7.3 (Organization Acceptance Criteria) of the referenced JTC1 Standing Document. As in that document, the mandatory response sub-clauses have been identified by "(M)" after the sub-clause heading.

**7.3 Organization Acceptance Criteria**

*The application shall be accompanied by statements of the PAS originator regarding the organization related criteria.*

***7.3.1 Cooperative Stance (M)***

*There should be evidence of a cooperative attitude toward open dialog, and a stated objective of pursuing standardization in the JTC 1 arena. The JTC 1 community will reciprocate in similar ways, and in addition, will recognize the organization's contribution to international standards*.

The Open Grid Forum (OGF) has since its inception been committed to developing open standards through open collaborations. Indeed, when co-hosting OGF events with conferences, anyone could attend working group meetings and contribute to standards. Initially modeled on the IETF organizational structure and processes, the OGF document production process enabled multinational research and infrastructure projects to showcase their innovations and collaborate on turning them into standard specifications in order to promote interoperation and harmonization.

The OGF holds Class A liaison status with ISO/IEC JTC1 SC38 (cloud and distributed computing) by virtue of the similarities between cloud and the “grid computing” that formed the initial working area of OGF (job submission, moving and storing data, accounting, authentication and authorisation, etc.) The OGF working groups have also implemented cloud standards, such as the Open Cloud Computing Interface (OCCI), along with other related specifications as detailed in section 7.3.1.4) a) below.

*It is JTC 1's intention to avoid any divergence between the JTC 1 revision of a transposed PAS and a version published by the originator. Therefore, JTC 1 invites the submitter to work closely with JTC 1 in revising or amending a transposed PAS.*

*There should be acceptable proposals covering the following categories and topics.*

***7.3.1.1) Commitment to Working Agreement(s)***

*a) What working agreements have been provided, how comprehensive are they*

As this is the OGF’s first application to become a PAS Submitter, there are no previous Working Agreements. However, through its existing Class A liaison, the OGF is already participating in WG3 of SC38 and is committed to developing Working Agreements with SC38 WG5 (for DFDL) and WG3 (for WS-Agreement).

*b) How manageable are the proposed working agreements (e.g. understandable, simple, direct, devoid of legalistic language except where necessary)?*

The OGF Editor works with its working groups to ensure that such considerations are addressed and resolved as part of the open public review process.

*c) What is the attitude toward creating and using working agreements?*

Through its existing Class A liaison with SC38, the OGF is already participating in WG3 of SC38 and is committed to developing Working Agreements with SC38 WG5 (for DFDL) and WG3 (for WS-Agreement).

***7.3.1.2) Ongoing Maintenance***

*a) What is the willingness and resource availability to conduct ongoing maintenance, interpretation, and 5 year revision cycles following JTC 1 approval (see also 5.2.5)?*

The OGF is committed to ongoing maintenance of DFDL and related PAS submissions. As DFDL is being actively developed and maintained, PAS Submissions are expected to fall well within the ‘5 year since publication’ review time frame.

*b) What level of willingness and resources are available to facilitate specification progression during the transposition process (e.g., technical clarification and normal document editing)?*

In coordination and with the support of our JTC 1 PAS Mentor, each working group identified by the OGF Steering Group that has a specification suitable for PAS submission will be made familiar with the ISO/IEC processes and encouraged to send representatives to attend relevant ISO/IEC meetings as appropriate. The DFDL specification and associated tooling is managed and evolved by the DFDL Working Group within the OGF, and members of the DFDL Working Group are ready to support the specification progression. Similarly, for WS-Agreement, OGF members have been identified who are willing to work with ISO/IEC on the WS-Agreement family of specifications, and in some cases have already been long-standing participants in ISO/IEC JTC1 SC38 WG3. We anticipate a smooth process with respect to these specifications.

***7.3.1.3) Changes during transposition***

*a) what are the expectations of the proposer toward technical and editorial changes to the specification during the transposition process?*

DFDL 1.0 and WS-Agreement are published OGF Recommendations (the highest classification for OGF documents), with several conforming implementations. If they are deemed to be needed during the transposition process, editorial changes (errata & clarifications) are welcomed and would be matched by corresponding adjustments to the published OGF document series. Technical changes would be targeted at a subsequent version that would replace or supplement the existing published OGF document.

*b) How flexible is the proposing organization toward using only portions of the proposed specification or adding supplemental material to it?*

This will depend on the OGF submission being considered. For example, DFDL 1.0 is already organized in such a way that there is a core and many optional features. Implementations can choose which optional features they want to provide. The standard currently receives only editorial or minor supplementary edits, whereas features or major supplemental material is targeted at a subsequent version. With regard to using only a portion of a published OGF specification, see section 7.3.3.1) c) below.

***7.3.1.4) Future Plan)***

*a) What are the intentions of the proposing organization toward future additions, ex- tensions, deletions or modifications to the specification? Under what conditions? When? Rationale?*

The DFDL Working Group is gathering candidate features for a possible future DFDL 2.0. There is also an 'experimental feature' convention whereby a DFDL 1.0 implementation can add such candidate features in order to get early feedback on feasibility. No date has yet been established for a future 2.0 version, although the group continues to gather feedback from the community on future needs. Similar considerations will apply to the WS-Agreement family of specifications, which are also widely adopted. Very likely, future additions, deletions, or modifications will not be needed to the existing published specifications but can be considered for future versions.

*b) What willingness exists to work with JTC 1 on future versions in order to avoid divergence?* *Note that the answer to this question is particularly relevant in cases where doubts may exist about the openness of the submitter organization.*

It is our expectation to cooperate with the ISO/IEC for any future versions as described in sections 7.3.1.2) and 7.3.1.3) above. On this basis, no divergence is envisaged.

c) *What is the scope of the organization activities relative to specifications similar to but beyond that being proposed?*

The usual pattern for documents produced by the OGF is that each specification or other work product is produced by a dedicated working group, research group, or community group focused specifically on that work product. For example, the DFDL Working Group is solely concerned with the DFDL 1.0 standard. A brief review of OGF specification highlights is given below for reference. A full list of OGF documents is available at <https://www.ogf.org/documents/>. Note that at this time, as described above, the OGF anticipates submitting the first two sets of specifications listed below for PAS review by ISO/IEC. Submission of other specifications will depend on the success of these first two submissions and on the willingness of the associated OGF working groups to engage in the PAS submission process.

* The **(**[**Data Format Description Language (DFDL)**](http://www.ogf.org/dfdl)**)** is a language for describing text and binary data formats. A DFDL description allows any text or binary data to be read from its native format and to be presented as an instance of an information set. DFDL also allows data to be taken from an instance of an information set and written out to its native format. DFDL achieves this by leveraging W3C XML Schema Definition Language (XSDL) 1.0. It is therefore very easy to use DFDL to convert text and binary data to a corresponding XML document.
* The [**WS-Agreement**](http://www.ogf.org/documents/GFD.192.pdf) and [**WS-Agreement Negotiation**](http://www.ogf.org/documents/GFD.193.pdf) family of specifications provide a language and a protocol for creation, management and monitoring of automated machine-readable service agreements in real time. This specification set includes provisions for advertising the capabilities of service providers and creating agreements based on templates, and for monitoring agreement compliance at runtime. Many implementations and a [framework](http://wsag4j.sourceforge.net/site/) exist for the use of these standards.
* The **(**[**Distributed Resource Management Application API (DRMAA)**](http://drmaa.org/)**)**, currently at [version 2](http://www.ogf.org/documents/GFD.194.pdf) and with an accompanying [C language binding](http://www.ogf.org/documents/GFD.198.pdf), is a set of API specifications for tightly coupled and portable programmatic access to cluster, grid, and cloud systems that has seen widespread adoption in batch scheduling and other implementations.
* The **(**[**Open Cloud Computing Interface OCCI**](http://occi-wg.org/)**)** specification set defines a general protocol and API applicable to many different cloud resource management tasks. OCCI began as a remote management API for IaaS model based Services, allowing for the development of interoperable tools for common tasks including deployment, autonomic scaling and monitoring. OCCI is suitable to serve many service delivery models in addition to IaaS, including e.g. PaaS and SaaS. The current release (v1.1) of OCCI has achieved a [**high degree of adoption and implementation in production in a wide variety of languages, projects, software products**](http://occi-wg.org/2015/02/15/big-growth-in-occi-community-implementation-activities-and-occiware-project-announced/) and application areas.
* Standards that underpin large-scale grid and related distributed computing systems include the [**High Performance Computing Basic Profile (HPC-BP)**](http://www.ogf.org/documents/GFD.179.pdf), the [**Basic Execution Service (BES)**](http://www.ogf.org/documents/GFD.108.pdf), as used for example in the [**XSEDE project**](http://www.xsede.org/) and [**European Middleware Initiative Execution Service**](http://www.ogf.org/documents/GFD.210.pdf) as well as many other international production distributed computing services, along with the [**Grid Laboratory Uniform Environment (GLUE)**](http://www.ogf.org/documents/GFD.209.pdf), the [**Resource Naming Service (RNS) Specification**](http://www.ogf.org/documents/GFD.171.pdf) and [**RNS WSRF Basic Profile Rendering**](http://www.ogf.org/documents/GFD.172.pdf), [**OGSA ByteIO**](http://www.ogf.org/documents/GFD.146.pdf), and many others.
* The [**Network Markup Language (NML)**](http://www.ogf.org/documents/GFD.206.pdf), [**Network Service Framework**](http://www.ogf.org/documents/GFD.213.pdf), [**Network Service Interface (NSI) Connection Service**](http://www.ogf.org/documents/GFD.212.pdf) and other products of our networking-oriented infrastructure groups enjoy widespread adoption and underpin some of the most advanced performance testing, monitoring and management frameworks in the industry.
* Extensive work exists on authentication and authorization in distributed environments, including the [**Grid Certificate Profile**](http://www.ogf.org/documents/GFD.125.pdf) and related documents produced by the [**Certificate Authority Operations (CAOPS)**](https://redmine.ogf.org/projects/caops-wg) working group and related products by the [**Federated Security**](https://redmine.ogf.org/projects/fedsec-cg) community group, used for example by the [**Interoperable Global Trust Federation (IGTF)**](http://igtf.net/) and supporting projects world-wide in cloud and grid computing.

**7.3.2 Characteristics of the Organization (M)**

*The PAS should have originated in a stable body that uses reasonable processes for achieving broad consensus among many parties. The PAS owner should demonstrate the openness and non-discrimination of the process which is used to establish consensus, and* *it should declare any ongoing commercial interest in the specification either as an organization in its own right or by supporting organizations such as revenue from sales or royalties.*

***7.3.2.1) Process and Consensus:***

*a) What processes and procedures are used to achieve consensus, by small groups and by the organization in its entirety?*

Documents are most often authored by members of OGF Working Groups, Community Groups or Research Groups (WGs, CGs or RGs), but may be submitted by any person. In the latter case, the submitter either needs to convince an existing OGF group to include the document into their portfolio and to process the document further, or the submitter needs to follow OGF’s procedure for creating a new group. Upon submission, there is a multi-stage review for OGF documents, including editorial review and public comment. For Recommendation track documents, "proposed" recommendations are the basis for reference implementations and may, with sufficient experience, become full OGF recommendations. Working groups, research groups, and community groups usually have their own internal practices, achieving consensus through voting, with the vote open to any active participant. The OGF Steering Group (GFSG) is authorized by the OGF Board of Directors to intervene in case of conflict and represents the organization in its entirety.

Four document types are defined:

1. Informational: To inform the community about a useful idea or set of ideas.
2. Experimental: To inform the community about a useful experiment, testbed, or implementation of an idea or set of ideas.
3. Community Practice: To inform the community of common practice or process, with the objective to influence the community.
4. Recommendations: To document a specification, analogous to an Internet Standards track document. OGF Recommendations are initially designated as "Proposed," and following further experience and review may become full OGF Recommendations.

Further information including a full description of the document process and advice intended to help to guide selection from among these categories is contained in GFD.152 available at: [**https://www.ogf.org/documents/GFD.152.pdf**](https://www.ogf.org/documents/GFD.152.pdf).

These policies and procedures have been developed over time from extensive experience, and are similar to those followed by other successful open standards bodies. They also ensure that the appropriate open public OGF process will be followed to make any changes, updates, errata or alterations to OGF published documents in producing any new versions. A full list of OGF published documents is available at <https://www.ogf.org/documents/>.

*b) How easy or difficult is it for interested parties, e.g., business entities, individuals,*

*or government representatives to participate?*

The OGF has operated over its more than 20 years history with deliberately low barriers to participation, as long as the processes described above are followed. In principle, any individual can join any group or propose a new group without having to go through a long membership process. Historically, participation in three consecutive meetings conferred membership of OGF. Interested parties are represented by individuals.

Charters for working groups and community groups are reviewed for approval by the OGF Steering Group as representatives of the Board, and asked to conform with organization policies by submitting answers to a set of questions governing establishment of goals, processes, need for new work, and output work products to be produced.

The OGF copyright and intellectual property rights statements, along with the associated disclaimers set out in section 7.3.3.1) c) below, exist to ensure that the output documents produced through the open public process that is used by the OGF community remain available and useful to that community and that further work can be developed from published OGF documents with appropriate reference.

*c) What criteria are used to determine "voting" rights in the process of achieving con- sensus?*

Voting rights in working groups is typically based on active participation in meetings, and in other contributions. Voting rights are equal: one person has one vote. The public comment phase of the OGF document production process is the primary method to ensure that the work product being produced has experienced adequate community review.

***7.3.2.2) Credibility and Longevity:***

*a) What is the extent of and support from (technical commitment) active members of the organization?*

The OGF groups are supported by the Steering Group (GFSG) through the relevant Area Director for the group (the AD is a member of the GFSG and *ex officio* member of the group). At a technical level, the GFSG supports groups with infrastructure such as mailing lists, wikis, etc.

*b) How well is the organization recognized by the interested/affected industry?*

The OGF has a long history of developing standards in the areas of distributed grid and cloud computing. As described below, the OGF itself was formed through a merger of two standards bodies, one primarily academic and one industry focused. The OGF standard specifications have long underpinned the existing scientific computing grid infrastructures and have had a strong influence on related cloud and distributed computing developments. They continue to experience a robust pattern of adoption.

*c) How long has the organization been functional (beyond the initial establishment period) and what are the future expectations for continued existence?*

The concept of a forum to bring together developers, practitioners, and users of distributed computing (known as grid computing at the time) was first discussed in November 1998 at the SC98 supercomputing conference. Based on the response to this idea, the first Grid Forum meeting was convened in June 1999, drawing roughly 100 people, mostly from the US. A plenary vote was held to form the Global Grid Forum (GGF), the most long-standing predecessor to the OGF, in October 1999.

With advice and assistance from the Internet Engineering Task Force (IETF), GGF established governance and document production processes based on those of the IETF. Groups similar to Grid Forum began to organize in Europe and Japan in that same time period. Discussions among leaders of these groups resulted in combining to form the Global Grid Forum, which met for the first time in March 2001. Another predecessor organization, the Enterprise Grid Alliance (EGA), was formed in 2004, more focused on large datacenter and associated software businesses.

In September 2006, the GGF became the Open Grid Forum (OGF) based on a formally approved merger of these two bodies. The OGF has continued to serve its participating community since then through open forums that build the community, explore trends, share best practices and consolidate these best practices into standards.

*d) What sort of legal business entity is the organization operating under?*

The OGF is a non-profit corporation qualifying as a tax-exempt entity under Section 501(C)(6) of the United States Internal Revenue Code and the corresponding provisions of state law. OGF is organized under the General Corporation Law of the state of Delaware within the United States of America.

**7.3.3 Intellectual Property Rights: (M)**

*The organization is requested to make known their position on the items listed below. In particular, there shall be a written statement of willingness of the organization and its members, if applicable, to comply with the ISO/IEC patent policy in reference to the PAS under consideration.*

***7.3.3.1) Patents:***

*a) How willing are the organization and its members to meet the ISO/IEC policy on these matters?*

By requirement, any OGF “Recommendation”-class standard will already have specifications and supporting documentation and software/prototype implementations freely and openly available to enable anyone in principle to implement the standard and test interoperation with existing implementations. This does not preclude proprietary implementations; the requirement is merely that sufficient specification and documentation/software be openly available without charge.

The OGF officers express their commitment to work with any of its groups to explain the requirements for ISO/IEC engagement and to assist them in complying with ISO/IEC policy.

*b) What patent rights, covering any item of the proposal, is the PAS owner aware of?*

This requirement is met by OGF participation rules, as follows.

“The OGF takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this specification can be obtained from the OGF Secretariat.”  
  
The OGF invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights which may cover technology that may be required to practice any of its recommendations and publishes any received claim on its web site at <https://www.ogf.org/ogf/doku.php/about/ipr>.

*c) What conditions, if any, apply (e.g., copyright statements, electronic labels, logos)?*

The Full Copyright Notice of the OGF is included on all of its publications as below. Please note the emphasized portions (emphasis added here for purposes of clarity).

“\*Copyright (C) Open Grid Forum (insert applicable years). Some Rights Reserved.\*

This document and translations of it **may be copied and furnished to others, and derivative works** that comment on or otherwise explain it or assist in its implementation **may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included as references to the derived portions on all such copies and derivative works.** The published OGF document from which such works are derived, however, may not be modified in any way, such as by removing the copyright notice or references to the OGF or other organizations, except as needed for the purpose of developing new or updated OGF documents in conformance with the procedures defined in the OGF Document Process, or as required to translate it into languages other than English. **OGF, with the approval of its board, may remove this restriction for inclusion of OGF document content for the purpose of producing standards in cooperation with other international standards bodies.**

The limited permissions granted above are perpetual and will not be revoked by the OGF or its successors or assignees.”  
  
As can be seen above, the stated intent of the OGF document process is to produce documents that encourage development of derived works while protecting the open nature of the organizational practices that are used to produce it and the provenance of the OGF to retain control over its produced documents and work products.

It is the intention of the OGF officers to obtain approval from the OGF Board to authorize removal of this copyright notice requirement for any contributions that derive from OGF publications for the purpose of producing ISO/IEC standards, according to the above pre-defined process. The documents produced by ISO/IEC using such content would then be free to use the contributed content so authorized without including the OGF copyright notice, if such removal would facilitate the use of OGF document content in ISO/IEC standards.

***7.3.3.3) Distribution Rights:***

*a) What distribution rights exist and what are the terms of use?*

See section 7.3.3.1) c) above.

*b) What degree of flexibility exists relative to modifying distribution rights; before the transposition process is complete, after transposition completion?*

See section 7.3.3.1) c) above.

*c) Is dual/multiple publication and/or distribution envisaged, and if so, by whom?*

During its initial engagement with ISO/IEC as a PAS submitter, the OGF expects to submit fully completed and realized specifications that it has already published for consideration as ISO/IEC standards products. In future engagements, the OGF will leave further development of refinements and future versions of the relevant specifications to the working groups, and will support continued development by either body of future versions or derived works.

***7.3.3.4) Trademark Rights:***

*a) What trademarks apply to the subject specification?*

See section 7.3.3.1) c) above. Individual OGF documents are also governed by the process described in section 7.3.3.1) b) above to identify relevant trademarks and other IPR related to the published specifications or to their development.

*b) What are the conditions for use and are they to be transferred to ISO/IEC in part or*

*in their entirety?*

See section 7.3.3.1) c) above.

***7.3.3.5) Original Contributions:***

*a) What original contributions (outside the above IPR categories) (e.g., documents, plans, research papers, tests, proposals) need consideration in terms of ownership and recognition?*

Wikis, supplementary documentation, documentation of software, and mailing list archives exist as backup for information about the OGF’s document preparation process and provenance for its resulting work products, and may be consulted if needed, but these are not anticipated to be included in PAS submissions as the specifications to be submitted should be complete enough to stand on their own.

*b) What financial considerations are there?*

The OGF does not seek financial compensation for its submitted documents or for any aspect of its engagement as a PAS submitter.

*c) What legal considerations are there?*

See section 7.3.3.1) c) above. By its process and participation rules, and through documentation of agreement by participants in the development of these documents, the OGF has full provenance and copyright ownership for the content it will submit to ISO/IEC as a PAS submitter.