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A URN Namespace for the Open Grid Forum (OGF)

Abstract

This document describes a URN (Uniform Resource Name) namespace that is engineered by the Open Grid Forum (OGF) for naming persistent resources.

Status of This Memo

This document is not an Internet Standards Track specification; it is published for informational purposes.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Not all documents approved by the IESG are a candidate for any level of Internet Standard; see Section 2 of RFC 5741.

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at http://www.rfc-editor.org/info/rfc6453.

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1. Introduction

The Open Grid Forum (OGF) is a standardisation development organisation in the field of distributed computing. The OGF produces documents such as working drafts, specifications, and schemata. For more information, see <http://www.ogf.org/>.

Working groups in the OGF community have expressed the need for global, distributed, persistent identifiers in working drafts and standards. Motivated by this need, the OGF would like to assign URNs to some resources in order to retain unique, permanent, location-independent names for them.

This namespace specification is for a formal namespace.

1.1. Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

2. URN Specification for "ogf" Namespace ID (NID)

2.1. Namespace ID

"ogf" (where "ogf" is an acronym for "Open Grid Forum").

2.2. Registration Information

Registration Version Number: 1
Registration Date: December 2011

2.3. Declared Registrant of the Namespace

Technical Director
Open Grid Forum
P.O. Box 1738
Muncie, Indiana 47308
USA
http://www.ogf.org/
EMail: urn@ogf.org

The position of Technical Director is currently fulfilled by Joel Replogle.

2.4. Declaration of Syntactic Structure

The formal syntax definitions below are given in ABNF [RFC5234].

The namespace-specific string (NSS) in the urn:ogf names hierarchy begins with a subnamespace identifier (SNID), followed by a delimiter and a subnamespace-dependent string

```
OGF-URN  =  "urn:ogf:" SNID ":" SUBNAMESPACE-SPECIFIC-STRING
```

where <SNID> is a unique subnamespace identifier for the specification, and <SUBNAMESPACE-SPECIFIC-STRING> is a unique identifier within the subnamespace identifier scope.

<SNID> has the same syntax as a <NID> as defined in [RFC2141]:

```
SNID  =  ( ALPHA / DIGIT )  *31( ALPHA / DIGIT / "-" )
```

ALPHA and DIGIT are defined in Appendix B of [RFC5234].

The Technical Director at OGF (or their successors) assigns SNIDs.

The syntax of <SUBNAMESPACE-SPECIFIC-STRING> is dependent on the <SNID> and MUST be defined by a Grid Forum Document [GFD.1]. This document does not pose any additional restrictions to the <SUBNAMESPACE-SPECIFIC-STRING> other than what is defined in the NSS syntax as defined by [RFC2141] or its successor:

```
SUBNAMESPACE-SPECIFIC-STRING  =  1*<URN chars>
```

<URN chars> is defined in Section 2.2 of [RFC2141].

2.5. Relevant Ancillary Documentation

The Technical Director at OGF (or their successors) will keep a list of assigned subnamespace identifiers and associated documentation at <http://www.ogf.org/urn/> [URN-OGF].

The procedures regarding how to register a subnamespace identifier are described in [GFD.191] and can also be found at the above Website.

2.6. Identifier Uniqueness Considerations

Identifier uniqueness will be enforced by the Technical Director of the Open Grid Forum.

The OGF Technical Director may sub-delegate part of the namespace to third parties. It will not be permissible, neither by the OGF nor any third party, to re-assign previously assigned URNs. A practical consequence is that a previously assigned subnamespace cannot be re-assigned, unless additional arrangements are made to prevent identifier re-assignments.

2.7. Identifier Persistence Considerations

The Technical Director will only assign subnamespace identifiers for persistent resources.

In order to enforce identifier persistence for individual resources, each document defining subnamespace identifiers MUST contain a section on the type of resource that is specified (e.g., whether a URN in the subnamespace identifies a specific version of a resource, the latest version of a resource, a specific manifestation, or a more general concept).

The namespace identifier "ogf" MUST NOT change, even if the Open Grid Forum changes its name or is disbanded.

2.8. Process of Identifier Assignment

Assignment of subnamespace identifiers is limited to the OGF and those authorities that are specifically designated by the OGF Technical Director of the OGF. The OGF may assign portions of its namespace (specifically, those under designated subnamespace identifiers) for assignment by third parties.

The details of this process are specified in [GFD.191].

The syntax and semantics of each subnamespace MUST be defined by a Grid Forum Document [GFD.1] before the corresponding SNID is assigned.

2.9. Process of Identifier Resolution

The OGF namespace is not currently listed with a Resolution Discovery System (RDS), but nothing about the namespace prohibits the future definition of appropriate resolution methods or listing with an RDS.

The OGF will maintain an index of all subnamespace identifiers on its Website <http://www.ogf.org/urn/>. This list may refer to known Resolution Discovery Systems.

2.10. Rules for Lexical Equivalence

The <SNID> part of URNs in the OGF hierarchy is case insensitive. Thus, the <SNID> MUST be case normalised before comparison.

The rules for lexical equivalence of the <SUBNAMESPACE-SPECIFIC-STRING> part of URNs in the OGF hierarchy is specific for each SNID and MUST be defined when a SNID is assigned by the OGF Technical Director. These definitions MUST include information about case sensitivity, and in the case of %-escaped octets, MUST define the exact normalisation to be used (e.g., interpret as octet, interpret as UTF-8, specify type of Unicode normalisation factor, etc.).

2.11. Conformance with URN Syntax

The intention of this document is to only restrict the syntax of the <SNID>. The syntax of the <SUBNAMESPACE-SPECIFIC-STRING> follows the general syntax of a URN:

```
SUBNAMESPACE-SPECIFIC-STRING  =  1*<URN chars>
```

Documents defining a subnamespace identifier SHOULD specify further syntactic restrictions in <SUBNAMESPACE-SPECIFIC-STRING>. It is RECOMMENDED that these documents forbid the assignment of URNs containing characters in the <reserved> set ("%", "/", "?", and "#") as defined in [RFC2141]. This is in accordance with Section 2.2 of [RFC3986].

For forward compatibility, it is RECOMMENDED that software implementations that don't validate subnamespace-specific strings validate the syntax according to the generic rules for validating URIs, as defined in [RFC3986]. URIs may contain all characters defined in <URN chars>, including the characters in <reserved> (albeit they have a special meaning), as well as the characters "&" and "~".

2.12. Validation Mechanism

The validation mechanism of URNs in the OGF hierarchy is specific for each SNID and SHOULD be defined when a SNID is assigned by the OGF Technical Director.

URNs in the OGF hierarchy without an assigned SNID are considered to be invalid.

2.13. Scope

Global URNs are relevant for the distributed computing community in general, and the Open Grid Forum in particular.

3. Examples (Informative)

Since no subnamespace identifiers have been defined yet, no actual examples can be given. Therefore, the following examples are not guaranteed to be real or even syntactically correct.

Grid Forum Documents defining the "gfd" and "network" subnamespace identifiers may give the following examples.

- urn:ogf:gfd:136
- urn:ogf:network:canarie.ca:kisti-uninett-glif-001

4. Namespace Considerations

The Open Grid Forum (OGF) is a standardisation development organisation in the field of distributed computing.

The use of the OGF hierarchy is expected to be broad, including but not limited to usage for:

- Grid Forum Documents
- XML (Extensible Markup Language) Schemata
- RDF (Resource Description Framework) Schemata

The Open Grid Forum is dedicated to openly publishing all technical documentation related to URNs in the OGF hierarchy and allowing unlimited distribution of these documents.

5. Community Considerations

Members of the distributed computing community will benefit from persistent and globally unique identifiers for use in protocols developed by the Open Grid Forum.

Practical use of the urn:ogf namespace has been detected, and a formal registration will allow the Open Grid Forum to document this usage and enforce technical review of current practices.

6. Security Considerations

There are no additional security considerations other than those normally associated with the use and resolution of URNs in general, which are described in [RFC1737], [RFC2141], and [RFC3406].

It is recommended that implementers check the OGF registry and documentation [URN-OGF] before assuming that a given identifier is valid or has a certain meaning.

7. IANA Considerations

IANA has registered the "ogf" namespace identifier (NID) with a reference to this document in the "Formal URN Namespaces" sub-registry [RFC3406] of the "Uniform Resource Names (URN) Namespaces" registry [URN-NAMESPACES].

8. Acknowledgements

The template and useful examples from [RFC3406] formed the basis for this document. The authors would like to thank Joel Replogle and Andre Mersky for setting up the urn:ogf subnamespace registry. Jeroen van der Ham, Peter Saint-Andre, and Mykyta Yevstifeyev proofread this document and provided valuable feedback.

9. References

9.1. Normative References

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[RFC2141] Moats, R., "URN Syntax", RFC 2141, May 1997.

[RFC3986] Berners-Lee, T., Fielding, R., and L. Masinter, "Uniform Resource Identifier (URI): Generic Syntax", STD 66, RFC 3986, January 2005.

[RFC5234] Crocker, D., Ed., and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", STD 68, RFC 5234, January 2008.

9.2. Informative References

[GFD.1] Catlett, C., "GGF Document Series", GFD 1, April 2002, <http://www.ogf.org/documents/GFD.1.pdf>.

[RFC1737] Sollins, K. and L. Masinter, "Functional Requirements for Uniform Resource Names", RFC 1737, December 1994.

[RFC3406] Daigle, L., van Gulik, D., Iannella, R., and P. Faltstrom, "Uniform Resource Names (URN) Namespace Definition Mechanisms", BCP 66, RFC 3406, October 2002.

[URN-NAMESPACES] IANA, "Uniform Resource Names (URN) Namespaces", <http://www.iana.org/>.

[URN-OGF] Open Grid Forum, "URN:OGF Hierarchy Registry and Documentation", <http://www.ogf.org/urn/>.

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