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A URN Namespace for Globus
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Abstract

This document describes a URN (Uniform Resource Name) namespace that is used by Globus for naming persistent resources.

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[1.](#) Introduction

Globus (<https://www.globus.org>) is a software-as-a-service provider that develops and operates services and tools for the global research and education community.

Globus provides multiple services for users across many

institutions, primarily for High Performance Computing driven research. Globus creates unique identifiers which will be persisted in external systems, and which must be identifiable as references to Globus entities.

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To address this need, this document requests that a formal URN space type be assigned as described in [Section 4.3 of RFC 3406](#).

[2.](#) Specification Template

[2.1.](#) Namespace ID

The Namespace ID "globus" is requested.

[2.2.](#) Registration Information

Version 1

Date: 2016-03-18

[2.3.](#) Declared Registrant of the Namespace

Globus Project Lead
401 N Michigan Ave
Suite 900
Chicago, Illinois, 60611
USA

Email: tuecke@globus.org

The position of Globus Project Lead is currently filled by Steve Tuecke.

[2.4.](#) Declaration of the Syntactic Structure

The Namespace Specific String (NSS) of all URNs that use the "globus" NID shall have the following structure:

<URN> ::= "urn:" "globus" ":" <NSS>

<NSS> ::= <SNID> | <SNID> ":" <subnamespace-specific-string>

<SNID> ::= 1*<non-colon-chars>

<subnamespace-specific-string> ::= 1*<URN chars>

<non-colon-chars> ::= <non-colon-trans> | "%" <hex> <hex>

<non-colon-trans> ::= <upper> | <lower> | <number> | <non-colon-other>

<non-colon-other> ::= "(" | ")" | "+" | "," | "-" | "." | "=" |
"@" | ";" | "\$" | "_" | "!" | "*" | "'"

The "SNID" is the top-level segment of the NSS. It is a required US-ASCII string, subject to the above syntax, that conforms to the URN syntax requirements (see [\[RFC 2141\]](#)). It identifies a category of Globus entities, often associated with a particular Globus service. For example "auth" could be used as an SNID for identifiers generated by the Globus authentication and authorization service (Globus Auth).

The "subnamespace-specific-string" is an optional US-ASCII string and second-level segment of the NSS, belonging to the "SNID" context, subject to the above syntax and conformant to the URN syntax requirements (see [\[RFC 2141\]](#)). "subnamespace-specific-string" identifies a category of thing within that Globus service, such as "scope:transfer.api.globus.org:all"

[2.5.](#) Relevant Ancillary Documentation

None.

[2.6.](#) Identifier Uniqueness Considerations

Identifier uniqueness will be enforced by the Globus Project Lead. The Globus Project Lead may sub-delegate part of the namespace to third parties. It will not be permissible, neither by the Globus Project Lead 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

Identifiers will never be reassigned, but in some circumstances they may be invalidated by the Globus Project Lead or by a third party.

[2.8.](#) Process of Identifier Assignment

Assignment of subnamespace identifiers is limited to the Globus Project Lead and those authorities that are specifically designated by the Globus Project Lead. The Globus Project Lead may assign portions of the globus namespace (specifically, those under designated subnamespace identifiers) for assignment by third parties.

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[2.9.](#) Process of Identifier Resolution

None currently.

Future versions of this document may define resources that can be used to resolve Globus identifiers.

[2.10.](#) Rules for Lexical Equivalence

No additional rules beyond those specified in [RFC2141](#).

[2.11.](#) Conformance with URN syntax

No special considerations.

[2.12.](#) Validation Mechanism

None currently.

Future versions of this document may define resources that can be used to validate Globus identifiers.

[2.13.](#) Scope

Global.

[3.](#) Examples (Informative)

The following examples are based on plans for the Globus URN. They

are therefore not guaranteed to be valid.

The Globus Auth service defines the "auth" SNID, and contains the following URNs.

- o urn:globus:auth:scope:transfer.api.globus.org:all
- o urn:globus:auth:grants:dependent_token

A hypothetical service, the Globus Groups service, would have a distinct SNID. If that SNID were "groups", it might have URNs such as the following.

- o urn:globus:groups:group:669b572e-9de4-11e5-966e-3c970e0c9cc4
- o urn:globus:groups:memberships:72e1c6c6-9de4-11e5-966e-3c970e0c9cc4

[4.](#) Namespace Considerations

The current set of existing NAIA namespaces are insufficient because Globus will be creating unique identifiers that will be persisted in external system, and these identifiers must be identifiable as references to Globus entities.

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

- o OAuth2 scopes (see [[RFC 6749](#)])
- o OAuth2 custom extension grants
- o Entity identification for Globus Services

[5.](#) Community Considerations

Members of the Globus community will benefit from persistent and globally unique identifiers for use in software and in conformance with protocols developed and used by Globus and third-party collaborators.

6. Security Considerations

There are no special meanings for characters in the NSS. Thus, 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](#)] and [[RFC2141](#)].

7. IANA Considerations

IANA is kindly requested to register the "globus" namespace identifier (NID) into the IANA registry located at [<http://www.iana.org/assignments/urn-namespaces>](http://www.iana.org/assignments/urn-namespaces)

8. References

8.1. Normative References

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

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

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[RFC6749] Hardt, D., "The OAuth 2.0 Authorization Framework", [RFC 6749](#), October 2012.

8.2. Informative References

None.

9. Acknowledgments

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