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**Link relation Type Registrations for OAuth 2
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Abstract

Defines link relation type registrations for the OAuth 2 authentication framework and OAuth 1.0a.

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1. Introduction

This document defines the link relation type [[RFC5988](#)] registrations for the OAuth 2 [[RFC6749](#)] authentication framework and for OAuth 1.0a [[RFC5849](#)]. These link relation types are used during the discovery process by clients needing to discover the entry points for OAuth authorization, token, and initiation for a service or site.

2. Terminology

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](#)].

The reader is assumed to be familiar with the terms used in the OAuth 2 and OAuth 1.0a specifications. OAuth uses the term "endpoint" instead of "entry point", this document will generally use the term "entry point" unless an OAuth specific term is needed.

3. OAuth 2 Link Relation Types

OAuth 2 [[RFC6749](#)] defines two entry points which a site or domain might need to advertize. These are the user authorization endpoint (usually expected to be a web page the user interacts with) and the token endpoint used for obtaining tokens used to access protected resources. These are described in detail in [Section 3](#) of the OAuth 2 specification.

3.1. The "oauth2-authorize" Link Relation Type

This link type indicates a resource that provides an OAuth 2 authorization endpoint to be used for user authentication/authorization to grant access to a protected resource.

3.2. The "oauth2-token" Link Relation Type

The OAuth 2 token endpoint to be used for obtaining tokens to access protected services. This link type has two link-extensions:

grant-types: A space separated list of OAuth 2 grant types (see [section 4 of \[RFC6749\]](#)) that can be used at the token endpoint to obtain a token. This is not an exclusive list, it provides a hint to the application of what SHOULD be valid. A token endpoint MAY support additional grant types not advertised by a discovery service. The client MAY use this to determine the grant types available for use.

token-types: A space separated list of OAuth 2 token types (see [section 7.1 of \[RFC6749\]](#)) that may be issued by the token endpoint. It is possible for a token endpoint to issue multiple tokens, and types may vary based on scope or other factors. This is not an exclusive list, it provides a hint to the application of what SHOULD be valid, and it MAY be used by a client to determine if the client supports one or more of the token type(s) available.

4. OAuth 1.0a Link Relation Types

The OAuth 1.0a [[RFC5849](#)] protocol defines three entry points that a site supporting OAuth 1.0a might advertize: the request initiation endpoint, the authorization endpoint, and the token endpoint. These are descibed in detail in [Section 2](#) of the OAuth 1.0a specification.

4.1. The "oauth-initiate" Link Relation Type

The OAuth 1.0a entry point used to initiate the sequence, this short lived request is what the user approves to grant access to the resource.

4.2. The "oauth-authorize" Link Relation Type

The OAuth 1.0a authorization entry point used to approve an access request. This is expected to be a user facing web interface.

4.3. The "oauth-token" Link Relation Type

The OAuth 1.0a token API entry point used to exchange an approved access request for a token, used by the client once the resource owner has approved the access request.

5. Security Considerations

This document is informational, defining values in existing registries, and as such has no security properties to discuss.

6. IANA Considerations

6.1. Link Type Registration

Pursuant to [[RFC5988](#)] The following link relation type registrations [[will be]] registered by mail to link-relations@ietf.org.

6.1.1. OAuth 2: oauth2-authorize

- o Relation Name: oauth2-authorize
- o Description: An OAuth 2 authorization endpoint to be used for user authentication/authorization to grant access to a protected resource.
- o Reference: [Section 3.1](#) of [[This Document]]
- o Notes:
- o Application Data: N/A

6.1.2. OAuth 2: oauth2-token

- o Relation Name: oauth2-token
- o Description: The OAuth 2 token endpoint to be used for obtaining tokens use to access a protected resource.
- o Reference: [Section 3.2](#) of [[This Document]]
- o Notes: This link type has two link extension parameters: "grant-types" and "token-types".
- o Application Data: N/A

6.1.3. OAuth 1.0a: oauth-initiate

- o Relation Name: oauth-initiate
- o Description: The OAuth 1.0a request initiation endpoint used to get an access request.
- o Reference: [Section 4.1](#) of [[This Document]]
- o Notes:
- o Application Data: N/A

6.1.4. OAuth 1.0a: oauth-authorize

- o Relation Name: oauth-authorize
- o Description: The OAuth 1.0a authorization endpoint used to approve an access request.
- o Reference: [Section 4.2](#) of [[This Document]]
- o Notes:
- o Application Data: N/A

6.1.5. OAuth 1.0a: oauth-token

- o Relation Name: oauth-token
- o Description: The OAuth 1.0a token API endpoint used to exchange an approved access request for a token, used by the client once the resource owner has approved the access request.
- o Reference: [Section 4.3](#) of [[This Document]]
- o Notes:
- o Application Data: N/A

7. Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [RFC5849] Hammer-Lahav, E., "The OAuth 1.0 Protocol", [RFC 5849](#), April 2010.
- [RFC5988] Nottingham, M., "Web Linking", [RFC 5988](#), October 2010.
- [RFC6749] Hardt, D., "The OAuth 2.0 Authorization Framework", [RFC 6749](#), October 2012.

[Appendix A](#). Document History

[[to be removed by RFC editor before publication as an RFC]]

-07

- o Editorial feedback & removed references.
- o Added specific text to note sections in the OAuth specs.

-06

- o Restructured the link extensions dscription into the prose, simplifying the IANA section.

-05

- o Changed the references to [[this document]] in the IANA parts.
- o Added a small ammount of text.

-04

- o Fixed the title.
- o Removed the examples.

-03

- o Corrected more typos and fixed the XRD for the examples, and small changes in the prose.

-02

- o Corrected typos. Added and example.

-01

- o Editorial changes, corrected authenticate to authrhorize is most places, and added examples.

-00

- o Initial revision

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