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A Uniform Resource Name (URN) Namespace for the Liberty Alliance Project

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Abstract

This document describes a Uniform Resource Name (URN) namespace that will identify various objects within the Liberty Architecture for federated network identity.

1. Introduction

The Liberty Architecture seeks to provide federated network identity in such a way that enhances security, privacy and trust; thus creating a networked world across which individuals and businesses can engage in virtually any transaction without compromising the privacy and security of vital identity information.

One fundamental component of this architecture is its use of XML [5], and specifically, XML Schema [7] and Namespaces [6]. These components require identifiers that will live far beyond the lifetime of the organization that produced them. As such, a URN namespace for those components that adheres to the assumptions and policies of the Liberty specification is required.

This namespace specification is for a formal namespace.

2. Specification Template

Namespace ID:

"liberty" requested.

Registration Information:

Registration Version Number: 1

Registration Date: 2003-04-01

Declared registrant of the namespace:

Liberty Alliance Project

c/o IEEE-ISTO

445 Hoes Lane

Piscataway, NJ 08855-1331, USA

info@projectliberty.org

Declaration of structure:

The Namespace Specific Strings (NSS) of all URNs assigned by Liberty will conform to the syntax defined in section 2.2 of RFC 2141 [1]. In addition, all Liberty URN NSSs will consist of a left-to-right series of tokens delimited by colons. The left-to-right sequence of colon-delimited tokens corresponds to descending nodes in a tree. To the right of the lowest naming authority node there may be zero, one or more levels of hierarchical (although not in the RFC 2396 [2] sense of 'hierarchy') naming nodes terminating in a rightmost leaf node. See the section entitled "Identifier assignment" below for more on the semantics of NSSs. This syntax convention is captured in the following normative ABNF [4] rules for Liberty NSSs:

```
Liberty-NSS      = 1*(subStChar) 0*(":" 1*(subStChar))
subStChar        = trans / "%" HEXDIG HEXDIG
trans            = ALPHA / DIGIT / other / reserved
other            = "(" / ")" / "+" / "," / "-" / "." /
                  "=" / "@" / ";" / "$" /
                  "_" / "!" / "*" / "'"
reserved         = "%" / "/" / "?" / "#"
```

The exclusion of the colon from the list of "other" characters means that the colon can only occur as a delimiter between string tokens. Note that this ABNF rule set guarantees that any valid Liberty NSS is also a valid RFC 2141 NSS.

For example:

```
urn:liberty:schemas:authctx:2002:05
urn:liberty:schemas:core:2002:12
```

Relevant ancillary documentation:

Liberty Architecture Overview [3]

Version 1.1

Liberty Alliance Project

January 15, 2003

Identifier uniqueness considerations:

Identifiers are assigned by the Liberty Project within its various standards. In the process of publishing a specification all newly minted names are checked against the record of previously assigned names.

Identifier persistence considerations:

The assignment process guarantees that names are not reassigned and that the binding between the name and its resource is permanent, regardless of any standards or organizational changes.

Process of identifier assignment:

Names are assigned by the Liberty standards publication process.

Process of identifier resolution:

At this time no resolution mechanism is specified.

Rules for Lexical Equivalence:

Lexical equivalence of two Liberty namespace specific strings (NSSs) is defined as an exact, case-sensitive string match. The Liberty Alliance will assign names of immediately subordinate

naming authorities in a case-insensitive fashion, so that there will not be two Liberty-subordinate naming authorities whose names differ only in case.

Conformance with URN Syntax:

There are no additional characters reserved.

Validation mechanism:

None other than verifying with the correct Liberty specifications.

Scope:

Global

3. IANA Considerations

This document includes a URN Namespace registration that has been entered into the IANA registry for URN NIDs.

4. Community Considerations

While there is no resolution mechanism for this namespace, the names themselves are used in public implementations of the Liberty specifications. There are circumstances where objects from the Liberty system will become exposed to the general Internet. In these cases, the use of the Liberty namespace will provide general interoperability benefits to the Internet at large. Additionally, there may be subcomponents of the Liberty specifications that may be adopted by other standards, in which case the URNs used to identify those components and specifications can be easily used to enhance other, non-Liberty based, systems.

5. Security Considerations

Since there is no defined resolution mechanism for Liberty URNs it is difficult to authenticate the fact that a given namespace actually adheres to the standard, thus applications should be careful to not take some unverified sources assertion that what it is sending adheres to what the actual URN is assigned to.

6. References

6.1. Normative References

- [1] Moats, R., "URN Syntax", RFC 2141, May 1997.
- [2] Berners-Lee, T., Fielding, R. and L. Masinter, "Uniform Resource Identifiers (URI): Generic Syntax", RFC 2396, August 1998.
- [3] Hodges, J. and T. Watson, "Liberty Architecture Overview", Liberty 1.1, January 2003, <<http://www.projectliberty.org/specs/liberty-architecture-overview-v1.1.pdf>>.

6.2. Informative References

- [4] Crocker, D., Ed. and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", RFC 2234, November 1997.
- [5] Bray, T., Paoli, J., Sperberg-McQueen, C. and E. Maler, "Extensible Markup Language (XML) 1.0 (2nd ed)", W3C REC-xml, October 2000, <<http://www.w3.org/TR/REC-xml>>.
- [6] Bray, T., Hollander, D. and A. Layman, "Namespaces in XML", W3C REC-xml-names, January 1999, <<http://www.w3.org/TR/REC-xml-names>>.
- [7] Thompson, H., Beech, D., Maloney, M. and N. Mendelsohn, "XML Schema Part 1: Structures", W3C REC-xmlschema-1, May 2001, <<http://www.w3.org/TR/xmlschema-1/>>.

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