Curdle Internet-Draft Intended status: Informational Expires: November 16, 2017

IANA Registration for Donated Symantec Website Security Object Identifier Range draft-schaad-curdle-oid-registry-01

Abstract

When the Curdle Security Working Group was chartered, a range of object identifiers was donated by Symantec Website Security for the purpose of registering the Edwards Elliptic Curve key agreement and signature algorithms. This donated set of OIDs allowed for shorter values than would be possible using the existing S/MIME or PKIX arcs. This document describes the range of identifiers that were assigned in that donated range, transfers control of that range to IANA, and establishes IANA allocation policies for any future assignments within that range.

Contributing to this document

The source for this draft is being maintained in GitHub. Suggested changes should be submitted as pull requests at <<u>https://github.com/lamps-wg/smime</u>>. Instructions are on that page as well. Editorial changes can be managed in GitHub, but any substantial issues need to be discussed on the LAMPS mailing list.

Status of This Memo

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OID Registry

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<u>1</u>. Introduction

When the Curdle Security Working Group was chartered, a range of object identifiers was donated by Symantec Website Security for use by that working group. The use of these object identifiers allowed for the Edwards Ellitptic Curve key agreement [RFC7748] and signature [RFC8032] algorithms to be defined with encodings that are smaller than similar ones would be if assigned from the existing S/MIME or PKIX arcs. These initial registrations from this arc were done while developing [I-D.ietf-curdle-pkix]. After those registrations were done, there were still some unused values that can be used for other security groups, there were still some unused values.

Object identifiers are primarily used with Abstract Syntax Notation (ASN.1) [<u>ASN.1</u>]. The ASN.1 specifications continue to evolve, but object identifiers can be used with any and all versions of ASN.1.

This document describes the object identifiers that were assigned in that donated range, transfers control of the range to IANA, and establishes IANA allocation policies for any future assignments.

The donated range from Symantec Website Security is:

first: { iso (1) identified-organization (3) thawte (101) 100 }
last: { iso (1) identified-organization (3) thawte (101) 127 }

2. IANA Considerations

IANA is asked to create one new registry table.

OID Registry

2.1. "SMI Security for Cryptographic Algorithms" Registry

Within the SMI-numbers registry, add an "SMI Security for Cryptographic Algorithms" table with the three columns:

+ Decimal	 Description	++ References
+	Reserved for child reg	++
110	id-X25519	[<u>I-D.ietf-curdle-pkix</u>]
111	id-X448	[<u>I-D.ietf-curdle-pkix</u>]
 112	id-EdDSA25519	[<u>I-D.ietf-curdle-pkix</u>]
113	id-EdDSA448	[<u>I-D.ietf-curdle-pkix</u>]
114 	Reserved for id- EdDSA25519-ph	[<u>I-D.ietf-curdle-pkix</u>]-03
 115 +	Reserved for id-EdDSA448-ph	 [<u>I-D.ietf-curdle-pkix</u>]-03 ++

The column 'Decimal' is required to be a number between 100 and 127 inclusive.

The value of 100 has been reserved so that a new arc below that point can be established in the future. (I.e. starting at 1.3.101.100.1) If the new child registry is established, a name for this value is to be assigned at that point. The experts can, at their discretion, assign an algorithm OID instead.

Future updates to this table require both 'Specification Required' and 'Expert Review' as defineed in [<u>RFC5226</u>].

<u>3</u>. Security Considerations

This document populates an IANA registry, and it raises no new security considerations. The protocols that specify these values include the security considerations associated with their usage.

4. References

4.1. Normative References

- [ASN.1] "Information Technology Abstract Syntax Notation One (ASN.1): Specification of basic notation. ITU-T Recommendation X.680 (2008)", ITU-T X.680, ISO/ IEC 8824-1:2008, November 2008.
- [RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", <u>BCP 26</u>, <u>RFC 5226</u>, DOI 10.17487/RFC5226, May 2008, <<u>http://www.rfc-editor.org/info/rfc5226</u>>.

4.2. Informational References

- [I-D.ietf-curdle-pkix] Josefsson, S. and J. Schaad, "Algorithm Identifiers for Ed25519, Ed448, X25519 and X448 for use in the Internet X.509 Public Key Infrastructure", draft-ietf-curdlepkix-04 (work in progress), March 2017.
- [RFC7748] Langley, A., Hamburg, M., and S. Turner, "Elliptic Curves for Security", <u>RFC 7748</u>, DOI 10.17487/RFC7748, January 2016, <<u>http://www.rfc-editor.org/info/rfc7748</u>>.
- [RFC8032] Josefsson, S. and I. Liusvaara, "Edwards-Curve Digital Signature Algorithm (EdDSA)", <u>RFC 8032</u>, DOI 10.17487/RFC8032, January 2017, <<u>http://www.rfc-editor.org/info/rfc8032</u>>.

Acknowledgments

Our thanks go out to Symantec for donating the range of OIDs covered in this document.

This document stole text heavily from a previous document doing similar thing by Russ Housely. Copying always makes things easier and less error prone.

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