   Object Identifier Registry for the S/MIME Mail Security Working Group

Abstract

   When the S/MIME Mail Security Working Group was chartered, an object
   identifier arc was donated by RSA Data Security for use by that
   working group. This document describes the object identifiers that
   were assigned in that donated arc, transfers control of that arc to
   IANA, and establishes IANA allocation policies for any future
   assignments within that arc.

Table of Contents

1. Introduction

   When the S/MIME Mail Security Working Group was chartered, an object
   identifier arc was donated by RSA Data Security for use by that
   working group. These object identifiers are primarily used with
   Abstract Syntax Notation One (ASN.1) [ASN1-88] [ASN1-08]. The ASN.1
   specifications continue to evolve, but object identifiers can be used
   with any and all versions of ASN.1.

   The S/MIME object identifier arc is:

      id-smime OBJECT IDENTIFIER ::= { iso(1) member-body(2)
              us(840) rsadsi(113549) pkcs(1) pkcs9(9) 16 }

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

2. Subordinate Object Identifier Arcs

   Thirteen subordinate object identifier arcs were used, numbered from
   zero to twelve. They were assigned as follows:

```
-- ASN.1 modules
id-mod  OBJECT IDENTIFIER ::= { id-smime  0 }

-- Cryptographic Message Syntax (CMS) content types
id-ct   OBJECT IDENTIFIER ::= { id-smime  1 }

-- attributes
id-aa   OBJECT IDENTIFIER ::= { id-smime  2 }

-- algorithm identifiers
id-alg  OBJECT IDENTIFIER ::= { id-smime  3 }

-- certificate distribution
id-cd   OBJECT IDENTIFIER ::= { id-smime  4 }

-- signature policy qualifier
id-spq  OBJECT IDENTIFIER ::= { id-smime  5 }

-- commitment type identifier
id-cti  OBJECT IDENTIFIER ::= { id-smime  6 }

-- test security policies
id-tsp  OBJECT IDENTIFIER ::= { id-smime  7 }

-- symmetric key distribution control attributes
id-skd  OBJECT IDENTIFIER ::= { id-smime  8 }

-- signature type identifier
id-sti  OBJECT IDENTIFIER ::= { id-smime  9 }

-- encoded information types
id-eit  OBJECT IDENTIFIER ::= { id-smime 10 }

 -- S/MIME capabilities
id-cap  OBJECT IDENTIFIER ::= { id-smime 11 }

-- PSKC attributes
id-pskc OBJECT IDENTIFIER ::= { id-smime 12 }
```

   The values assigned in each of these subordinate object identifier
   arcs are discussed in the next section.

3. IANA Considerations

   IANA is asked to update one registry table and create fourteen
   additional tables.

   Updates to the new tables require both Specification Required and
   Expert Review as defined in [RFC5226]. The expert is expected to
   ensure that any new values are strongly related to the work that was
   done by the S/MIME Mail Security Working Group; examples include
   content types, attributes, and identifiers for algorithms used with
   S/MIME and CMS. Object identifiers for other purposes should not be
   assigned in this arc.

3.1. Update to "SMI Security for Mechanism Codes" Registry

   The "SMI Security for Mechanism Codes" table generally contains
   entries with a positive integer value, but the value donated by RSA
   Data Security cannot be described in this manner. An accompanying
   table is needed with this entry:

OID Value	Name	Description	References
1.2.840.113549.1.9.16	smime	S/MIME Mail Security	This RFC

3.2. "SMI Security for S/MIME Mail Security" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME Mail
   Security (1.2.840.113549.1.9.16)" table with three columns:

Decimal	Description	References
0	Module identifiers	This RFC
1	CMS content types	This RFC
2	Attributes	This RFC
3	Algorithm identifiers	This RFC
4	Certificate distribution	This RFC
5	Signature policy qualifiers	This RFC
6	Commitment type identifiers	This RFC
7	Test security policies	This RFC
8	Symmetric key dist ctrl attrs	This RFC
9	Signature type identifiers	This RFC
10	Encoded information types	This RFC
11	S/MIME capabilities	This RFC
12	PSKC attributes	This RFC

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.3. "SMI Security for S/MIME Module Identifier" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Module Identifier (1.2.840.113549.1.9.16.0)" table with three
   columns:

Decimal	Description	References
1	id-mod-cms	[RFC2630]
2	id-mod-ess	[RFC2634]
3	id-mod-oid	Reserved and Obsolete
4	id-mod-msg-v3	[RFC2633]
5	id-mod-ets-eSignature-88	[RFC3126]
6	id-mod-ets-eSignature-97	[RFC3126]
7	id-mod-ets-eSigPolicy-88	[RFC3125]
8	id-mod-ets-eSigPolicy-97	[RFC3125]
9	id-mod-certdist	Reserved and Obsolete
10	id-mod-domsec	[RFC3183]
11	id-mod-compress	[RFC3274]
12	id-mod-symkeydist	[RFC5275]
13	id-mod-cek-reuse	[RFC3185]
14	id-mod-cms-2001	[RFC3369]
15	id-mod-v1AttrCert	[RFC3369]
16	id-mod-cmsalg-2001	[RFC3370]
17	id-mod-cms-pwri-88	[RFC3211]
18	id-mod-cms-pwri-97	[RFC3211]
19	id-mod-cms-aes	[RFC3565]
20	id-mod-cms-rsaes-oaep	[RFC3560]
21	id-mod-msg-v3dot1	[RFC3851]
22	id-mod-cms-firmware-wrap	[RFC4108]
23	id-mod-cms-camellia	[RFC3657]
24	id-mod-cms-2004	[RFC3852]
25	id-mod-cms-seed	[Err3865]
26	id-mod-contentCollection	[RFC4073]
27	id-mod-binarySigningTime	[RFC4049]
28	id-mod-ets-eSignature-explicitSyntax88	[RFC5126]
29	id-mod-ets-eSignature-explicitSyntax97	[RFC5126]
30	id-mod-ess-2006	[RFC5035]
31	id-mod-cms-authEnvelopedData	[RFC5083]
32	id-mod-cms-aes-ccm-and-gcm	[RFC5084]
33	id-mod-symmetricKeyPkgV1	[RFC6031]
34	id-mod-multipleSig-2008	[RFC5752]
35	id-mod-timestampedData	[RFC5544]
36	id-mod-symkeydist-02	[RFC5911]
37	id-mod-cmsalg-2001-02	[RFC5911]

```
   38         id-mod-cms-aes-02                       [RFC5911]
   39         id-mod-msg-v3dot1-02                    [RFC5911]
   40         id-mod-cms-firmware-wrap-02             [RFC5911]
   41         id-mod-cms-2004-02                      [RFC5911]
   42         id-mod-ess-2006-02                      [RFC5911]
   43         id-mod-cms-authEnvelopedData-02         [RFC5911]
   44         id-mod-cms-aes-ccm-gcm-02               [RFC5911]
   45         id-mod-cms-ecc-alg-2009-88              [RFC5753]
   46         id-mod-cms-ecc-alg-2009-02              [RFC5753]
   47         id-mod-aesKeyWrapWithPad-88             [RFC5649]
   48         id-mod-aesKeyWrapWithPad-02             [RFC5649]
   49         id-mod-MD5-XOR-EXPERIMENT               [Err3866]
   50         id-mod-asymmetricKeyPkgV1               [RFC5958]
   51         id-mod-encryptedKeyPkgV1                [RFC6032]
   52         id-mod-cms-algorithmProtect             [RFC6211]
   53         id-mod-pskcAttributesModule             [RFC6031]
   54         id-mod-compressedDataContent            [RFC6268]
   55         id-mod-binSigningTime-2009              [RFC6268]
   56         id-mod-contentCollect-2009              [RFC6268]
   57         id-mod-cmsAuthEnvData-2009              [RFC6268]
   58         id-mod-cms-2009                         [RFC6268]
   59         id-mod-multipleSign-2009                [RFC6268]
   60         id-mod-rpkiManifest                     [RFC6486]
   61         id-mod-rpkiROA                          [RFC6482]
   62         id-mod-setKeyAttributeV1                [SET-KEY]
   63         id-mod-keyPkgReceiptAndErrV2            [CMS-TYPES]
   64         id-mod-mts-hashsig-2013                 [MTS-in-CMS]
```

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.4. "SMI Security for S/MIME CMS Content Type" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME CMS
   Content Type (1.2.840.113549.1.9.16.1)" table with three columns:

Decimal	Description	References
0	id-ct-anyContentType	[RFC6010]
1	id-ct-receipt	[RFC2634]
2	id-ct-authData	[RFC2630]
3	id-ct-publishCert	Reserved and Obsolete
4	id-ct-TSTInfo	[RFC3161]
5	id-ct-TDTInfo	Reserved and Obsolete
6	id-ct-contentInfo	[RFC2630]
7	id-ct-DVCSRequestData	[RFC3029]
8	id-ct-DVCSResponseData	[RFC3029]
9	id-ct-compressedData	[RFC3274]

```
10          id-ct-scvp-certValRequest              [RFC5055]
11          id-ct-scvp-certValResponse             [RFC5055]
12          id-ct-scvp-valPolRequest               [RFC5055]
13          id-ct-scvp-valPolResponse              [RFC5055]
14          id-ct-attrCertEncAttrs                 [RFC5755]
15          id-ct-TSReq                  Reserved and Obsolete
16          id-ct-firmwarePackage                  [RFC4108]
17          id-ct-firmwareLoadReceipt              [RFC4108]
18          id-ct-firmwareLoadError                [RFC4108]
19          id-ct-contentCollection                [RFC4073]
20          id-ct-contentWithAttrs                 [RFC4073]
21          id-ct-encKeyWithID                     [RFC4211]
22          id-ct-encPEPSI               Reserved and Obsolete
23          id-ct-authEnvelopedData                [RFC5083]
24          id-ct-routeOriginAuthz                 [RFC6482]
25          id-ct-KP-sKeyPackage                   [RFC6031]
26          id-ct-rpkiManifest                     [RFC6486]
27          id-ct-asciiTextWithCRLF                [RFC5485]
28          id-ct-xml                              [RFC5485]
29          id-ct-pdf                              [RFC5485]
30          id-ct-postscript                       [RFC5485]
31          id-ct-timestampedData                  [RFC5544]
32          id-ct-ASAdjacencyAttest      Reserved and Obsolete
33          id-ct-rpkiTrustAnchor        Reserved and Obsolete
34          id-ct-trustAnchorList                  [RFC5914]
35          id-ct-rpkiGhostbusters                 [RFC6493]
36          id-ct-resourceTaggedAttest   Reserved and Obsolete
```

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.5. "SMI Security for S/MIME Attributes" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Attributes (1.2.840.113549.1.9.16.2)" table with three columns:

```
Decimal  Description                              References
-------  ---------------------------------------- ----------
1        id-aa-receiptRequest                     [RFC2634]
2        id-aa-securityLabel                      [RFC2634]
3        id-aa-mlExpandHistory                    [RFC2634]
4        id-aa-contentHint                        [RFC2634]
5        id-aa-msgSigDigest                       [RFC2634]
6        id-aa-encapContentType       Reserved and Obsolete
7        id-aa-contentIdentifier                  [RFC2634]
8        id-aa-macValue               Reserved and Obsolete
9        id-aa-equivalentLabels                   [RFC2634]
10       id-aa-contentReference                   [RFC2634]
```

```
      11          id-aa-encrypKeyPref                       [RFC2633]
      12          id-aa-signingCertificate                  [RFC2634]
      13          id-aa-smimeEncryptCerts        Reserved and Obsolete
      14          id-aa-signatureTimeStampToken             [RFC3126]
      15          id-aa-ets-sigPolicyId                     [RFC3126]
      16          id-aa-ets-commitmentType                  [RFC3126]
      17          id-aa-ets-signerLocation                  [RFC3126]
      18          id-aa-ets-signerAttr                      [RFC3126]
      19          id-aa-ets-otherSigCert                    [RFC3126]
      20          id-aa-ets-contentTimestamp                [RFC3126]
      21          id-aa-ets-CertificateRefs                 [RFC3126]
      22          id-aa-ets-RevocationRefs                  [RFC3126]
      23          id-aa-ets-certValues                      [RFC3126]
      24          id-aa-ets-revocationValues                [RFC3126]
      25          id-aa-ets-escTimeStamp                    [RFC3126]
      26          id-aa-ets-certCRLTimestamp                [RFC3126]
      27          id-aa-ets-archiveTimeStamp                [RFC3126]
      28          id-aa-signatureType                       [Err3757]
      29          id-aa-dvcs-dvc                            [RFC3029]
      30          id-aa-CEKReference                        [RFC3185]
      31          id-aa-CEKMaxDecrypts                      [RFC3185]
      32          id-aa-KEKDerivationAlg                    [RFC3185]
      33          id-aa-intendedRecipients       Reserved and Obsolete
      34          id-aa-cmc-unsignedData                    [RFC5272]
      35          id-aa-firmwarePackageID                   [RFC4108]
      36          id-aa-targetHardwareIDs                   [RFC4108]
      37          id-aa-decryptKeyID                        [RFC4108]
      38          id-aa-implCryptoAlgs                      [RFC4108]
      39          id-aa-wrappedFirmwareKey                  [RFC4108]
      40          id-aa-communityIdentifiers                [RFC4108]
      41          id-aa-fwPkgMessageDigest                  [RFC4108]
      42          id-aa-firmwarePackageInfo                 [RFC4108]
      43          id-aa-implCompressAlgs                    [RFC4108]
      44          id-aa-ets-attrCertificateRefs             [RFC5126]
      45          id-aa-ets-attrRevocationRefs              [RFC5126]
      46          id-aa-binarySigningTime                   [RFC4049]
      47          id-aa-signingCertificateV2                [RFC5035]
      48          id-aa-ets-archiveTimeStampV2              [RFC5126]
      49          id-aa-er-internal                         [RFC4998]
      50          id-aa-er-external                         [RFC4998]
      51          id-aa-multipleSignatures                  [RFC5752]
      52          id-aa-cmsAlgorithmProtect                 [RFC6211]
      53          id-aa-setKeyInformation                   [SET-KEY]
      54          id-aa-asymmDecryptKeyID                   [RFC7030]
```

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.6. "SMI Security for S/MIME Algorithms" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Algorithms (1.2.840.113549.1.9.16.3)" table with three columns:

Decimal	Description	References
1	id-alg-ESDHwith3DES	Reserved and Obsolete
2	id-alg-ESDHwithRC2	Reserved and Obsolete
3	id-alg-3DESwrap	Reserved and Obsolete
4	id-alg-RC2wrap	Reserved and Obsolete
5	id-alg-ESDH	[RFC2630]
6	id-alg-CMS3DESwrap	[RFC2630]
7	id-alg-CMSRC2wrap	[RFC2630]
8	id-alg-zLibCompress	[RFC3274]
9	id-alg-PWRI-KEK	[RFC3211]
10	id-alg-SSDH	[RFC3370]
11	id-alg-HMACwith3DESwrap	[RFC3537]
12	id-alg-HMACwithAESwrap	[RFC3537]
13	id-alg-MD5-XOR-EXPERIMENT	[RFC6210]
14	id-alg-rsa-kem	[RFC5990]
15	id-alg-authEnc-128	[RFC6476]
16	id-alg-authEnc-256	[RFC6476]
17	id-alg-mts-hashsig	[MTS-in-CMS]

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.7. "SMI Security for S/MIME Certificate Distribution Mechanisms"
      Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Certificate Distribution Mechanisms (1.2.840.113549.1.9.16.4)" table
   with three columns:

Decimal	Description	References
1	id-cd-ldap	Reserved and Obsolete

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.8. "SMI Security for S/MIME Signature Policy Qualifier" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Signature Policy Qualifier (1.2.840.113549.1.9.16.5)" table with
   three columns:

Decimal	Description	References
1	id-spq-ets-uri	[RFC3126]
2	id-spq-ets-unotice	[RFC3126]

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.9. "SMI Security for S/MIME Commitment Type Identifier" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Commitment Type Identifier (1.2.840.113549.1.9.16.6)" table with
   three columns:

Decimal	Description	References
1	id-cti-ets-proofOfOrigin	[RFC3126]
2	id-cti-ets-proofOfReceipt	[RFC3126]
3	id-cti-ets-proofOfDelivery	[RFC3126]
4	id-cti-ets-proofOfSender	[RFC3126]
5	id-cti-ets-proofOfApproval	[RFC3126]
6	id-cti-ets-proofOfCreation	[RFC3126]

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.10. "SMI Security for S/MIME Test Security Policies" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME Test
   Security Policies (1.2.840.113549.1.9.16.7)" table with three
   columns:

Decimal	Description	References
1	id-tsp-TEST-Amoco	[RFC3114]
2	id-tsp-TEST-Caterpillar	[RFC3114]
3	id-tsp-TEST-Whirlpool	[RFC3114]
4	id-tsp-TEST-Whirlpool-Categories	[RFC3114]

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.11.   "SMI Security for S/MIME Control Attributes for Symmetric Key
        Distribution" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Control Attributes for Symmetric Key Distribution
   (1.2.840.113549.1.9.16.8)" table with three columns:

Decimal	Description	References
1	id-skd-glUseKEK	[RFC5275]
2	id-skd-glDelete	[RFC5275]
3	id-skd-glAddMember	[RFC5275]
4	id-skd-glDeleteMember	[RFC5275]
5	id-skd-glRekey	[RFC5275]
6	id-skd-glAddOwner	[RFC5275]
7	id-skd-glRemoveOwner	[RFC5275]
8	id-skd-glKeyCompromise	[RFC5275]
9	id-skd-glkRefresh	[RFC5275]
10	id-skd-glFailInfo	Reserved and Obsolete
11	id-skd-glaQueryRequest	[RFC5275]
12	id-skd-glaQueryResponse	[RFC5275]
13	id-skd-glProvideCert	[RFC5275]
14	id-skd-glManageCert	[RFC5275]
15	id-skd-glKey	[RFC5275]

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.12.   "SMI Security for S/MIME Signature Type Identifiers" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Signature Type Identifiers (1.2.840.113549.1.9.16.9)" table with
   three columns:

Decimal	Description	References
1	id-sti-originatorSig	[RFC3183]
2	id-sti-domainSig	[RFC3183]
3	id-sti-addAttribSig	[RFC3183]
4	id-sti-reviewSig	[RFC3183]

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.13. "SMI Security for S/MIME X.400 Encoded Information Types (EIT)
       for S/MIME objects" Registry

   Within the SMI-numbers registry, add an "SMI Security for X.400
   Encoded Information Types (EIT) for S/MIME objects
   (1.2.840.113549.1.9.16.10)" table with three columns:

      Decimal   Description   References
      -------   ------------------------------------   ----------
      1   id-eit-envelopedData   [RFC3855]
      2   id-eit-signedData   [RFC3855]
      3   id-eit-certsOnly   [RFC3855]
      4   id-eit-signedReceipt   [RFC3855]
      5   id-eit-envelopedX400   [RFC3855]
      6   id-eit-signedX400   [RFC3855]
      7   id-eit-compressedData   [RFC3855]

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.14. "SMI Security for S/MIME Capabilities (other than cryptographic
       algorithms)" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Capabilities (other than cryptographic algorithms)
   (1.2.840.113549.1.9.16.11)" table with three columns:

      Decimal   Description   References
      -------   ------------------------------------   ----------
      1   id-cap-preferBinaryInside   [RFC3851]

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

3.15. "SMI Security for S/MIME Portable Symmetric Key Container (PSKC)
       Attributes" Registry

   Within the SMI-numbers registry, add an "SMI Security for S/MIME
   Portable Symmetric Key Container (PSKC) Attributes
   (1.2.840.113549.1.9.16.12)" table with three columns:

      Decimal   Description   References
      -------   ------------------------------------   ----------
      1   id-pskc-manufacturer   [RFC6031]
      2   id-pskc-serialNo   [RFC6031]
      3   id-pskc-model   [RFC6031]
      4   id-pskc-issueNo   [RFC6031]
      5   id-pskc-deviceBinding   [RFC6031]

```
     6          id-pskc-deviceStartDate            [RFC6031]
     7          id-pskc-deviceExpiryDate           [RFC6031]
     8          id-pskc-moduleId                   [RFC6031]
     9          id-pskc-keyId                      [RFC6031]
    10          id-pskc-algorithm                  [RFC6031]
    11          id-pskc-issuer                     [RFC6031]
    12          id-pskc-keyProfileId               [RFC6031]
    13          id-pskc-keyReference               [RFC6031]
    14          id-pskc-friendlyName               [RFC6031]
    15          id-pskc-algorithmParams            [RFC6031]
    16          id-pskc-counter                    [RFC6031]
    17          id-pskc-time                       [RFC6031]
    18          id-pskc-timeInterval               [RFC6031]
    19          id-pskc-timeDrift                  [RFC6031]
    20          id-pskc-valueMAC                   [RFC6031]
    21          id-pskc-keyStartDate               [RFC6031]
    22          id-pskc-keyExpiryDate              [RFC6031]
    23          id-pskc-noOfTransactions           [RFC6031]
    24          id-pskc-keyUsages                  [RFC6031]
    25          id-pskc-pinPolicy                  [RFC6031]
    26          id-pskc-deviceUserId               [RFC6031]
    27          id-pskc-keyUserId                  [RFC6031]
```

   Future updates to this table require both Specification Required and
   Expert Review as defined in [RFC5226].

4. 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.

5. References

5.1. Normative References

   [ASN1-08]   International Telecommunication Union, "Abstract Syntax
                Notation One (ASN.1): Specification of basic notation",
                ITU-T Recommendation X.680, 2008.

   [ASN1-88]   International Telephone and Telegraph Consultative
                Committee, "Specification of Abstract Syntax Notation
                One (ASN.1)", CCITT Recommendation X.208, 1988.

   [RFC5226]   Narten, T. and H. Alvestrand, "Guidelines for Writing an
                IANA Considerations Section in RFCs", BCP 26, RFC 5226,
                May 2008.

5.2. Informative References

   [CMS-TYPES] Housley, R., "Cryptographic Message Syntax (CMS) Key
                Package Receipt and Error Content Types", Work in
                Progress, December 2013.

   [Err3757]   RFC Errata, Errata ID 3757, RFC 3183,
                <http://www.rfc-editor.org>.

   [Err3865]   RFC Errata, Errata ID 3865, RFC 4010,
                <http://www.rfc-editor.org>.

   [Err3866]   RFC Errata, Errata ID 3866, RFC 6210,
                <http://www.rfc-editor.org>.

   [MTS-in-CMS] Housley, R., "Use of the Hash-based Merkle Tree
                Signature (MTS) Algorithm in the Cryptographic Message
                Syntax (CMS)", Work in Progress, August 2013.

   [RFC2630]   Housley, R., "Cryptographic Message Syntax", RFC 2630,
                June 1999.

   [RFC2633]   Ramsdell, B., Ed., "S/MIME Version 3 Message
                Specification", RFC 2633, June 1999.

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