



PKCS #11 Cryptographic Token Interface Current Mechanisms Specification Version 2.40 Errata 01

OASIS Approved Errata

13 May 2016

Specification URIs

This version:

<http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/errata01/os/pkcs11-curr-v2.40-errata01-os.doc> (Authoritative)
<http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/errata01/os/pkcs11-curr-v2.40-errata01-os.html>
<http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/errata01/os/pkcs11-curr-v2.40-errata01-os.pdf>

Previous version:

N/A

Latest version:

<http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/pkcs11-curr-v2.40.doc> (Authoritative)
<http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/pkcs11-curr-v2.40.html>
<http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/pkcs11-curr-v2.40.pdf>

Technical Committee:

OASIS PKCS 11 TC

Chairs:

Robert Relyea (rrelyea@redhat.com), Red Hat
Valerie Fenwick (valerie.fenwick@oracle.com), Oracle

Editors:

Robert Griffin (robert.griffin@emc.com), EMC Corporation
Tim Hudson (tjh@cryptsoft.com), Cryptsoft Pty Ltd

Additional artifacts:

This prose specification is one component of a Work Product that also includes:

- *PKCS #11 Cryptographic Token Interface Current Mechanisms Specification Version 2.40 Plus Errata 01*. Edited by Susan Gleeson, Chris Zimman, Robert Griffin, and Tim Hudson. 13 May 2016. OASIS Approved Errata. <http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/errata01/os/pkcs11-curr-v2.40-errata01-os-complete.html>.

Related work:

This specification is related to:

- Normative computer language definition files for PKCS #11 v2.40:
 - <http://docs.oasis-open.org/pkcs11/pkcs11-base/v2.40/errata01/os/include/pkcs11-v2.40/pkcs11.h>
 - <http://docs.oasis-open.org/pkcs11/pkcs11-base/v2.40/errata01/os/include/pkcs11-v2.40/pkcs11t.h>

- <http://docs.oasis-open.org/pkcs11/pkcs11-base/v2.40/errata01/os/include/pkcs11-v2.40/pkcs11f.h>

Abstract:

This document contains corrections to errors and omissions in the *PKCS #11 Cryptographic Token Interface Current Mechanisms Specification Version 2.40*, OASIS Standard.

Status:

This document was last revised or approved by the OASIS PKCS 11 TC on the above date. The level of approval is also listed above. Check the “Latest version” location noted above for possible later revisions of this document. Any other numbered Versions and other technical work produced by the Technical Committee (TC) are listed at https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=pkcs11#technical.

TC members should send comments on this specification to the TC’s email list. Others should send comments to the TC’s public comment list, after subscribing to it by following the instructions at the “[Send A Comment](#)” button on the TC’s web page at <https://www.oasis-open.org/committees/pkcs11/>.

For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Intellectual Property Rights section of the TC’s web page (<https://www.oasis-open.org/committees/pkcs11/ipr.php>).

Citation format:

When referencing this specification the following citation format should be used:

[PKCS11-curr-v2.40-Errata01]

PKCS #11 Cryptographic Token Interface Current Mechanisms Specification Version 2.40 Errata 01. Edited by Robert Griffin and Tim Hudson. 13 May 2016. OASIS Approved Errata. <http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/errata01/os/pkcs11-curr-v2.40-errata01-os.html>. Latest version: <http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/pkcs11-curr-v2.40.pdf>.

Notices

Copyright © OASIS Open 2016. All Rights Reserved.

All capitalized terms in the following text have the meanings assigned to them in the OASIS Intellectual Property Rights Policy (the "OASIS IPR Policy"). The full [Policy](#) may be found at the OASIS website.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published, and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this section are included on all such copies and derivative works. However, this document itself may not be modified in any way, including by removing the copyright notice or references to OASIS, except as needed for the purpose of developing any document or deliverable produced by an OASIS Technical Committee (in which case the rules applicable to copyrights, as set forth in the OASIS IPR Policy, must be followed) or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by OASIS or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and OASIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY OWNERSHIP RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OASIS requests that any OASIS Party or any other party that believes it has patent claims that would necessarily be infringed by implementations of this OASIS Committee Specification or OASIS Standard, to notify OASIS TC Administrator and provide an indication of its willingness to grant patent licenses to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification.

OASIS invites any party to contact the OASIS TC Administrator if it is aware of a claim of ownership of any patent claims that would necessarily be infringed by implementations of this specification by a patent holder that is not willing to provide a license to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification. OASIS may include such claims on its website, but disclaims any obligation to do so.

OASIS takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on OASIS' procedures with respect to rights in any document or deliverable produced by an OASIS Technical Committee can be found on the OASIS website. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this OASIS Committee Specification or OASIS Standard, can be obtained from the OASIS TC Administrator. OASIS makes no representation that any information or list of intellectual property rights will at any time be complete, or that any claims in such list are, in fact, Essential Claims.

The name "OASIS" is a trademark of [OASIS](#), the owner and developer of this specification, and should be used only to refer to the organization and its official outputs. OASIS welcomes reference to, and implementation and use of, specifications, while reserving the right to enforce its marks against misleading uses. Please see <https://www.oasis-open.org/policies-guidelines/trademark> for above guidance.

Table of Contents

| | | |
|-----|---|----|
| 1 | Introduction | 5 |
| 1.1 | Terminology | 5 |
| 1.2 | Normative References | 5 |
| 2 | Errata for PKCS #11 Current Mechanisms Specification v2.40 OS..... | 6 |
| 2.1 | Removal of Manifest Constants from Appendix B | 6 |
| 2.2 | Corrections to TLS V1.2 Mechanisms | 6 |
| 2.3 | Corrections to PKCS #11 Current Mechanisms Specification V2.40 OS | 6 |
| 3 | Conformance | 8 |
| | Appendix A. Acknowledgments | 9 |
| | Appendix B. Revision History | 12 |

1 Introduction

[All text is normative unless otherwise labeled]

1.1 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 [\[RFC2119\]](#).

1.2 Normative References

- [RFC2119]** Bradner, S., “Key words for use in RFCs to Indicate Requirement Levels”, BCP 14, RFC 2119, March 1997. <http://www.ietf.org/rfc/rfc2119.txt>.
- [PKCS #11-Curr]** *PKCS #11 Cryptographic Token Interface Current Mechanisms Specification Version 2.40*. Edited by Susan Gleeson and Chris Zimman. 14 April 2015. OASIS Standard. <http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/os/pkcs11-curr-v2.40-os.html>. Latest version: <http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/pkcs11-curr-v2.40.html>.
- [PKCS #11-Curr-Rev01]** *PKCS #11 Cryptographic Token Interface Current Mechanisms Specification Version 2.40 Plus Errata 01*. Edited by Susan Gleeson, Chris Zimman, Robert Griffin, and Tim Hudson. 09 December 2015. OASIS Standard Incorporating Draft 01 of Errata 01. <http://docs.oasis-open.org/pkcs11/pkcs11-curr/v2.40/errata01/csd01/pkcs11-curr-v2.40-errata01-csd01-complete.html>.

2 Errata for PKCS #11 Current Mechanisms Specification v2.40 OS

2.1 Removal of Manifest Constants from Appendix B

To minimize the risk of errors, values for PKCS #11 manifest constants in [PKCS #11-Curr-Rev01] are specified only in the normative computer language definition files associated with that specification. The table of manifest constant definitions that was included in Appendix B of the [PKCS #11-Curr] is not included in [PKCS #11-Curr-Rev01]. Corrections to errors in Appendix B of [PKCS #11-Curr] have been incorporated into the normative computer language definition files specified in [PKCS #11-Curr-Rev01].

See the following normative computer language definition files (linked from the “[Related work](#)” section above) for the manifest constants:

- include/pkcs11-v2.40/pkcs11.h
- include/pkcs11-v2.40/pkcs11t.h
- include/pkcs11-v2.40/pkcs11f.h

2.2 Corrections to TLS V1.2 Mechanisms

Implementers of the TLS V1.2 mechanisms as specified in [PKCS #11-Curr] should consult the PKCS 11 TC wiki at <https://wiki.oasis-open.org/pkcs11/> for the latest informative guidance prior to implementing these mechanisms. Refinements to the specification of the TLS V1.2 mechanisms are anticipated as part of PKCS #11 V2.41.

2.3 Corrections to PKCS #11 Current Mechanisms Specification V2.40 OS

The following corrections have been made in [PKCS #11-Curr-Rev01]:

- The definition of CK_SEED_CBC_ENCRYPT_DATA_PARAMS was omitted from the specification text.

```
typedef struct CK_SEED_CBC_ENCRYPT_DATA_PARAMS {
    CK_BYTE      iv[16];
    CK_BYTE_PTR  pData;
    CK_ULONG     length;
} CK_SEED_CBC_ENCRYPT_DATA_PARAMS;
typedef CK_SEED_CBC_ENCRYPT_DATA_PARAMS CK_PTR
CK_SEED_CBC_ENCRYPT_DATA_PARAMS_PTR;
```

- References to CK_PARAM_TYPE have been corrected to CK_OTP_PARAM_TYPE.
- The corrected definition of CK_PKCS5_PBKDF2_PARAMS2 that replaces the deprecated CK_PKCS5_PBKD2_PARAMS was omitted from the specification text.

```
typedef struct CK_PKCS5_PBKD2_PARAMS2 {
    CK_PKCS5_PBKDF2_SALT_SOURCE_TYPE saltSource;
    CK_VOID_PTR  pSaltSourceData;
```

```

    CK_ULONG ulSaltSourceDataLen;
    CK_ULONG iterations;
    CK_PKCS5_PBKD2_PSEUDO_RANDOM_FUNCTION_TYPE prf;
    CK_VOID_PTR pPrfData;
    CK_ULONG ulPrfDataLen;
    CK_UTF8CHAR_PTR pPassword;
    CK_ULONG ulPasswordLen;
} CK_PKCS5_PBKD2_PARAMS2;

```

- References to CKM_X9_42_DH_PKCS_PARAMETER_GEN have been corrected to CKM_X9_42_DH_PARAMETER_GEN
- Typographical error of CKM_AES_XCBC_MAC-96 has been corrected to CKM_AES_XCBC_MAC_96
- In section 2.41.5.1 the CKA_OTP_CHALLENGE_REQUIREMENT table entry had an incorrect line break.
- References to CKA_OTP_CHALLENGE_REQUIEMENT have been corrected to CKA_OTP_CHALLENGE_REQUIREMENT
- References to CK_CBC_ENCRYPT_DATA_PARAMS have been corrected to CK_SEED_CBC_ENCRYPT_DATA_PARAMS
- References to CK_CBC_ENCRYPT_DATA_PARAMS_PTR have been corrected to CK_SEED_CBC_ENCRYPT_DATA_PARAMS_PTR
- Missing text in section 2.2.1 CK_DSA_PARAMETER_GEN_PARAM has been included
 - CK_DSA_PARAMETER_GEN_PARAM_PTR is a pointer to a CK_DSA_PARAMETER_GEN_PARAM
- Typographical error with an extra space in "CK_ECMQV_DERIVE_PARAMS"
- Missing text in section 2.45.5 CK_GOSTR3410_DERIVE_PARAMS has been included
 - CK_GOSTR3410_DERIVE_PARAMS_PTR is a pointer to a CK_GOSTR3410_DERIVE_PARAMS
- Missing text in section 2.45.5 CK_GOSTR3410_KEY_WRAP_PARAMS has been included
 - CK_GOSTR3410_KEY_WRAP_PARAMS_PTR is a pointer to a CK_GOSTR3410_KEY_WRAP_PARAMS
- References to CKM_DSA_PROBABALISTIC_PARAMETER_GEN have been corrected to CKM_DSA_PROBABLISTIC_PARAMETER_GEN
- References to CKM_GOSTR3410_WITH_GOST3411 have been corrected to CKM_GOSTR3410_WITH_GOSTR3411
- References to CKM_SHA1 have been corrected to CKM_SHA_1
- References to CK_OTP_FORMAT have been corrected to CK_OTP_OUTPUT_FORMAT
- References to CK_PKCS5_PBKD2_PARAM have been corrected to CK_PKCS5_PBKD2_PARAMS

3 Conformance

PKCS #11 Implementation Conformance is defined in Section 3 of **[PKCS #11-Curr]**.

Appendix A. Acknowledgments

The following individuals have participated in the creation of this specification and are gratefully acknowledged:

Participants:

Gil Abel, Athena Smartcard Solutions, Inc.
Warren Armstrong, QuintessenceLabs
Jeff Bartell, Semper Fortis Solutions LLC
Peter Bartok, Venafi, Inc.
Anthony Berglas, Cryptsoft
Joseph Brand, Semper Fortis Solutions LLC
Kelley Burgin, National Security Agency
Robert Burns, Thales e-Security
Wan-Teh Chang, Google Inc.
Hai-May Chao, Oracle
Janice Cheng, Vormetric, Inc.
Sangrae Cho, Electronics and Telecommunications Research Institute (ETRI)
Doron Cohen, SafeNet, Inc.
Fadi Cotran, Futurex
Tony Cox, Cryptsoft
Christopher Duane, EMC
Chris Dunn, SafeNet, Inc.
Valerie Fenwick, Oracle
Terry Fletcher, SafeNet, Inc.
Susan Gleeson, Oracle
Sven Gossel, Charismathics
John Green, QuintessenceLabs
Robert Griffin, EMC
Paul Grojean, Individual
Peter Gutmann, Individual
Dennis E. Hamilton, Individual
Thomas Hardjono, M.I.T.
Tim Hudson, Cryptsoft
Gershon Janssen, Individual
Seunghun Jin, Electronics and Telecommunications Research Institute (ETRI)
Wang Jingman, Feitan Technologies
Andrey Jivsov, Symantec Corp.
Mark Joseph, P6R
Stefan Kaesar, Infineon Technologies
Greg Kazmierczak, Wave Systems Corp.

Mark Knight, Thales e-Security
Darren Krahn, Google Inc.
Alex Krasnov, Infineon Technologies AG
Dina Kurktchi-Nimeh, Oracle
Mark Lambiase, SecureAuth Corporation
Lawrence Lee, GoTrust Technology Inc.
John Leiseboer, QuintessenceLabs
Sean Leon, Infineon Technologies
Geoffrey Li, Infineon Technologies
Howie Liu, Infineon Technologies
Hal Lockhart, Oracle
Robert Lockhart, Thales e-Security
Dale Moberg, Axway Software
Darren Moffat, Oracle
Valery Osheter, SafeNet, Inc.
Sean Parkinson, EMC
Rob Philpott, EMC
Mark Powers, Oracle
Ajai Puri, SafeNet, Inc.
Robert Relyea, Red Hat
Saikat Saha, Oracle
Subhash Sankuratipati, NetApp
Anthony Scarpino, Oracle
Johann Schoetz, Infineon Technologies AG
Rayees Shamsuddin, Wave Systems Corp.
Radhika Siravara, Oracle
Brian Smith, Mozilla Corporation
David Smith, Venafi, Inc.
Ryan Smith, Futurex
Jerry Smith, US Department of Defense (DoD)
Oscar So, Oracle
Graham Steel, Cryptosense
Michael Stevens, QuintessenceLabs
Michael StJohns, Individual
Jim Susoy, P6R
Sander Temme, Thales e-Security
Kiran Thota, VMware, Inc.
Walter-John Turnes, Gemini Security Solutions, Inc.
Stef Walter, Red Hat
James Wang, Vormetric
Jeff Webb, Dell
Peng Yu, Feitian Technologies

Magda Zdunkiewicz, Cryptsoft
Chris Zimman, Individual

Appendix B. Revision History

| Revision | Date | Editor | Changes Made |
|----------|------------|--------------------------------|---|
| wd01 | 9 Dec 2015 | Robert Griffin / Tim Hudson | First draft, incorporating v2.40 errata from the PKCS 11 TC wiki into template document |