PKCS #15 v1.0 Amendment 1 Draft #1

RSA Laboratories

20 October, 1999

Editor's note: This is the first draft of this amendment, which is available for a 30-day public review period. Please send comments and suggestions, both technical and editorial, to *pkcs-editor@rsasecurity.com* or *pkcs-tng@rsasecurity.com*.

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1. Introduction

In certain circumstances, there is a need to make a PKCS #15-library aware of the fact that a user has to re-authenticate after accessing a private object, e.g. a private key, a certain number of times. This amendment documents the changes to PKCS #15 v1.0 needed to support this.

2. Changes to Section 7, "Information Syntax in ASN.1"

[Replace the ASN.1 definition of ***PKCS15CommonObjectAttributes*** *in Section 7.1.7 with:]*

```
PKCS15CommonObjectAttributes ::= SEQUENCE {
      label   PKCS15Label OPTIONAL,
      flags   PKCS15CommonObjectFlags OPTIONAL,
      authId  PKCS15Identifier OPTIONAL,
      ...,
      userConsent [0] INTEGER (1..pkcs15-ub-userConsent) OPTIONAL
      } (CONSTRAINED BY {-- authId should be present in the IC card
      -- case if flags.private is set. It must equal an
```

```
    -- authID in one AuthRecord in the AODF. userConsent may only be present if
    -- flags.private is set. -- })
```

[Add the following paragraph after the currently last paragraph in Section 7.1.7:]

The **`userConsent`** field gives, in the case of a private object, the number of times an application may access the object without explicit consent from the user (e.g. a value of **3** indicates that a new authentication will be required before the first, the 4th, the 7th, etc. access).

3. Changes to Section 8, "ASN.1 Module"

[Add the following definition after the definition of pkcs15-ub-recordLength:]

```
pkcs15-ub-userConsent INTEGER ::= 15
```

*[Replace the ASN.1 definition of **PKCS15CommonObjectAttributes** with:]*

```
PKCS15CommonObjectAttributes ::= SEQUENCE {
    label   PKCS15Label OPTIONAL,
    flags   PKCS15CommonObjectFlags OPTIONAL,
    authId  PKCS15Identifier OPTIONAL,
    ...,
    userConsent INTEGER (1..pkcs15-ub-userConsent) OPTIONAL
    } (CONSTRAINED BY {-- authId should be present in the IC card
    -- case if flags.private is set. It must equal an
    -- authID in one AuthRecord in the AODF. userConsent may only be present if
    -- flags.private is set. -- })
```

A. Intellectual property considerations

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B. References

[1] RSA Laboratories. *PKCS #15: Cryptographic Token Information Format Standard*. Version 1.0, April 1999.

C. About PKCS

The *Public-Key Cryptography Standards* are specifications produced by RSA Laboratories in cooperation with secure systems developers worldwide for the purpose of accelerating the deployment of public-key cryptography. First published in 1991 as a result of meetings with a small group of early adopters of public-key technology, the PKCS documents have become widely referenced and implemented. Contributions from the PKCS series have become part of many formal and *de facto* standards, including ANSI X9 documents, PKIX, SET, S/MIME, and SSL.

Further development of PKCS occurs through mailing list discussions and occasional workshops, and suggestions for improvement are welcome. For more information, contact:

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