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**The application/firmware, application/firmware-receipt, and
application/firmware-error media types
draft-turner-application-firmware-media-types-00.txt**

Abstract

This document registers the application/firmware, application/firmware-receipt and application/firmware-error media media types for use with the corresponding CMS (Cryptographic Message Syntax) content types defined in [RFC 4108](#).

Status of this Memo

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1. Introduction

[RFC4108] defined three CMS (Cryptographic Message Syntax) [[RFC5652](#)] content types for servers to distribute Firmware packages as well as clients to return receipts and errors. Three media types are defined in this document to support the transfer of firmware packages, firmware package receipts, and firmware package errors.

Firmware packages, firmware package receipts, and firmware package errors are always encapsulated within ContentInfo structures [[RFC4108](#)]. Firmware packages are additionally encapsulated within a SignedData structure [[RFC4108](#)]. Firmware package receipts and errors can be digitally signed and to indicate this option an optional parameters is defined: protection=signed.

1.1. Requirements 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](#)].

2. Media Type Registration Applications

2.1. Firmware Package Receipt

This section provides the media type registration application for the application/firmware-receipt media type (see [[RFC6838](#)], [Section 5.6](#)).

Type name: application

Subtype name: firmware

Required parameters: None

Optional parameters: None

Encoding considerations: binary.

Security considerations: See [[RFC4108](#)].

Interoperability considerations: See [[RFC4108](#)].

Published specification: [RFC 4108](#) and this specification.

Applications which use this media type:

Applications that support Firmware Package Receipts [[RFC4108](#)].

Additional information:

Magic number(s): None

File extension(s): .fp

Macintosh File Type Code(s):

Person & email address to contact for further information:

Sean Turner <turners@ieca.com>

Restrictions on usage: none

Author: Sean Turner <turners@ieca.com>

Intended usage: COMMON

Change controller: The IESG

2.2. Firmware Package Receipt

This section provides the media type registration application for the application/firmware-receipt media type (see [[RFC6838](#)], [Section 5.6](#)).

Type name: application

Subtype name: firmware-receipt

Required parameters: None

Optional parameters:

Implementations can indicate whether the firmware package was signed with the following parameter: protection=signed.

Encoding considerations: binary.

Security considerations: See [[RFC4108](#)].

Interoperability considerations: See [[RFC4108](#)].

Published specification: [RFC 4108](#) and this specification.

Applications which use this media type:

Applications that support Firmware Package Receipts [[RFC4108](#)].

Additional information:

Magic number(s): None

File extension(s): .fpr

Macintosh File Type Code(s):

Person & email address to contact for further information:

Sean Turner <turners@ieca.com>

Restrictions on usage: none

Author: Sean Turner <turners@ieca.com>

Intended usage: COMMON

Change controller: The IESG

2.3. Firmware Package Errors

This section provides the media type registration application for this media type (see [\[RFC6838\]](#), [Section 5.6](#)).

Type name: application

Subtype name: firmware-error

Required parameters: None

Optional parameters:

Implementations can indicate whether the firmware package was signed with the following optional parameter: protection=signed.

Encoding considerations: binary.

Security considerations: See [\[RFC4108\]](#).

Interoperability considerations: See [\[RFC4108\]](#).

Published specification: [RFC 4108](#) and this specification.

Applications which use this media type:

Applications that support Firmware Key Package Errors [\[RFC4108\]](#).

Additional information:

Magic number(s): None
File extension(s): .fpe
Macintosh File Type Code(s):

Person & email address to contact for further information:

Sean Turner <turners@ieca.com>

Restrictions on usage: none

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Intended usage: COMMON

Change controller: The IESG <iesg@ietf.org>

3. IANA Considerations

IANA is asked to register the media type application/firmware, application/firmware-receipt, and application/firmware-error in the Standards tree using the applications provided in [Section 2.1](#)-2.3 of this document.

4. Security Considerations

No new security considerations are introduced in addition to those specified in [[RFC4108](#)].

5. References

5.1. Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [RFC4108] Housley, R., "Using Cryptographic Message Syntax (CMS) to Protect Firmware Packages", [RFC 4108](#), August 2005.
- [RFC5652] Housley, R., "Cryptographic Message Syntax (CMS)", STD 70, [RFC 5652](#), September 2009.

5.2. Informative References

None.

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