Payment Requests and Transfers in Swaptacular

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Overview

This document outlines the way payment requests and transfers work in Swaptacular.

Note: 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 RFC 2119.

Payment Request Documents

A "Payment Request Document", or simply a *payment request*, is a machine-readable document that represents a request some amount of a specified currency, to be transferred to a specified account. A multitude of standard formats can be used for payment request documents, which shall be defined in their respective format specifications.

As an absolute minimum, every payment request MUST contain a `swpt`[1] URI which uniquely identifies **the payee's account**.

Furthermore, payment requests SHOULD contain:

- *the requested amount*

- *the payee reference*

  The "payee reference" is a short string that the payer should include in the transfer note for the payment (see below), so that the payee can match the incoming transfer with the corresponding payment request. For example, this could be an invoice number.

Payment requests MAY contain additional information like:

- *the payee name*,
- *the reason for the payment*,

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[1] The `swpt` URI scheme is defined in a separate document.

- *the deadline for the payment,*
- etc.

Transfer Note

In Swaptacular, every transfer can have a *transfer note.*[2] The "transfer note" is a textual message that contains information which the sender wants the recipient of the transfer to see.

In addition to the transfer note, the sender can specify a *transfer note format*, which is a short string that indicates how the content of the corresponding transfer note should be interpreted.

Transfer Note Formats

The sender of each transfer can choose among a multitude of standard *transfer note formats.* Every transfer note format is identified by a short string — the format's name[3].

The following transfer note formats MUST be supported by all conforming implementations:

- `""` (an empty string)

  Indicates that the transfer note contains plain text.

- `"-"` (a dash)

  Indicates that the transfer note contains an absolute Internationalized Resource Identifier (IRI). *Payee reference is not specified.*

- `"."` (a dot)

  Indicates that the transfer note contains an absolute Internationalized Resource Identifier (IRI), and *this IRI is the payee reference.*

Other standard transfer note formats shall be defined in their own specification documents. Transfer note formats fall into two broad categories:

1. **Non-canonical formats**

   This category includes the plain text format (`""`), and all formats whose names start with a dash (`"-"`). For non-canonical formats, there are no "a priori" restrictions on the the message structure.

2. **Canonical formats**

   This category includes all formats whose names do not start with a dash (`"-"`), and have at least one character. For canonical formats, the first

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[2]This is specified by the Swaptacular Messaging Protocol.

[3]The transfer note format name MUST match the regular expression: ^[0-9A-Za-z.-]{0,8}$

line[4] MUST always refer to *the payee reference* from the corresponding payment request.

This simple restriction, imposed on canonical formats' message structure, allows the payee to successfully match incoming transfers with their corresponding payment requests, even when the payer uses *unknown transfer note formats*, as long as they are canonical.

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[4]The first line consists of the characters occurring before the first CR (Carriage Return, ASCII code 13) or LF (Line Feed, ASCII code 10) character.