



# STS Association

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## **STS700-1**

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**Standard Transfer Specification – Key Management –  
Conditions of use and conduct for the use and  
management of Supply Group Codes**

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### Revision History

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draft1		02/07/2021	For review by STSA Board
draft2		03/07/2021	Resolution of comments Sent for legal review
Draft3		06/07/2021	Resolution of comments
Draft4		18/07/2021	Resolution of Eskom comments
Draft5		19/07/2021	Legal review
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Edition 1		23/07/2021	Released for use
Edition 1.1	various	13/08/2021	Added the term SGC sub user

## STANDARD TRANSFER SPECIFICATION ASSOCIATION

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### STANDARD TRANSFER SPECIFICATION –

### Key Management – Conditions of use and conduct for the use and management of Supply Group Codes

#### FOREWORD

- 1) The Standard Transfer Specification Association ("STSA") is a worldwide organization for standardization comprising all of the members of STSA. The object of STSA is to develop, maintain and promote the local and international use of the Standard Transfer Specification ("STS"). To this end and in addition to other activities, STSA publishes Standards, Technical Specifications, Technical Reports, Codes of Practice and Guides (hereafter referred to as "STSA Publication(s)"). Their preparation is entrusted to technical working groups; any STSA member interested in the subject dealt with may participate in this preparatory work. STSA collaborates closely with the International Electrotechnical Commission ("IEC") in accordance with conditions determined by agreement between the two organizations. As such STSA performs the role of Registration Authority of IEC 62055-41, IEC 62055-51 and IEC 62055-52 on behalf of IEC.
- 2) The formal decisions or agreements of STSA on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each working group has representation from all interested STSA members.
- 3) STSA Publications have the form of recommendations for international use and are accepted by STSA Board of Directors on that basis. While all reasonable efforts are made to ensure that the technical content of STSA Publications is accurate, STSA cannot (and does not) guarantee the accuracy of the content of those publications, will not be held responsible for the way in which they are used or relied upon, or for any misinterpretation by any end user.
- 5) Independent testing bodies provide conformity assessment services and recommendations to STSA Board of Directors who provides conformance certificates and access to STSA marks of conformity.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to STSA or its directors, employees, servants or agents including individual experts and members of its technical working groups for any loss, personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this STSA Publication or any other STSA Publications.
- 8) Attention is drawn to the normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this STSA Publication may be the subject of patent rights. STSA shall not be held responsible for identifying any or all such patent rights.

## INTRODUCTION

One of the key components of any STS-based system are the Supply Group Codes (SGC), which are used to create decoder keys associated with a vending key, and to demarcate geographical areas of payment meter installations.

The management and rights of use of these SGCs are of paramount importance to ensure that the allocation, management, and use of these SGCs are well managed.

## STANDARD TRANSFER SPECIFICATION –

### Key Management – Conditions of use and conduct for the use and management of Supply Group Codes

#### 1 Scope

Subject to a successful application for a SGC (which shall include the acceptance by the SGC Applicant of the conditions of use and conduct specified in this part of STS 700-1), the STSA grants to the registered SGC User the exclusive rights of use of an allocated SGC, which rights will endure for so long as the SGC User complies with the conditions of use and conduct specified in this part of STS 700-1, or any other conditions imposed by the STSA from time to time and applicable law.

This part of STS 700-1 only governs the conditions and rights of use of an allocated SGC to the registered SGC User and does not cover the distribution of a SGC to third parties, which is governed by other secure infrastructure and key management processes.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

STS401-1: Code of practice for the allocation of Supply Group Codes

IEC 62055-41: Standard Transfer Specification (STS) – Application layer protocol for one-way token carrier systems

#### 3 Abbreviations, Terms and definitions

For the purposes of this document, the meanings given to words and phrases in IEC 62055-41 will be given the same meaning in this document, and the following additional words, phrases and/or abbreviations will be given the meanings set forth in this paragraph 3:

##### Abbreviations:

KMC – Key Management Centre

STS – Standard Transfer Specification

STSA - Standard Transfer Specification Association

##### Terms and definitions:

##### Vending Key:

a unique secret cryptographic code created and maintained by the STSA for the purpose of encrypting tokens intended for use in payment meters installed in a geographically demarcated supply area and which is logically linked to a unique SGC.

##### SGC:

a unique 6-digit decimal number allocated to a SGC User, which is registered within the key management system, and is used to uniquely identify a sub-group of payment meters within the supply or distribution domain. Each Supply Group has one or more Vending Keys associated with it and hence each payment meter in the group has a uniquely derived decoder key associated with it. Thus, token sales authorization is controlled by selective distribution of a SGC and its associated Vending Key to Token Vendors or other authorized agents.

**Supply Group:**

a set of STS compliant payment meters deployed on a geographical or a regional basis which is identified and managed as an entity through its SGC

**SGC Application Form:**

a formal document provided by the STSA and submitted by a SGC Applicant who is making an application to the STSA for the rights of use of a SGC, and which incorporates the conditions of use and conduct specified in this part of STS 700-1.

**SGC Applicant:**

a Juristic Person who makes an application (using the SGC Application Form) to the STSA for the right to use a SGC.

**Juristic Person:**

an existing body recognized by the law as being entitled to rights and duties in the same way as a natural or human person, including, without limitation, companies and close corporations.

**Natural Person:**

a living human person.

**SGC User:**

a Juristic Person whose SGC Application has been approved, which has been registered at the KMC and granted exclusive rights of use of a SGC.

**SGC Sub-user**

a Juristic Person whose SGC Application has been approved by the SGC User, which has been registered at the KMC and granted rights of use of a SGC by the STSA.

**Utility:**

a Juristic Person legally licensed to sell electricity, water, gas or time as the primary supplier of the utility to a Sub-Metering Entity or a Consumer.

**Sub-Metering Entity:**

a Juristic Person who purchases a utility from a Utility and re-sells it to a Consumer who is subservient to the Sub-Metering Entity.

**Token Vendor:**

a Juristic Person who is contractually empowered to create an STS token on behalf of a Utility or Sub-Metering Entity by making use of a SGC.

**Sub-Vendor:**

a Juristic Person who obtains an STS token from a Token Vendor and distributes it to a Consumer.

**Consumer:**

a Natural Person or Juristic Person who is the end-customer in the utility supply chain who consumes the utility.

**Meter Manufacturer:**

a Juristic Person who manufactures and sells meters using STS technology.

**Meter Vendor:**

a Juristic Person who sells meters and who is not a meter manufacturer.

**POPIA:**

the Protection of Personal Information Act No. 4 of 2013 of South Africa.

**Vending System Manufacturer:**

a Juristic Person who manufactures and sells vending systems using STS technology.

## **4 Conditions to the right to use a SGC**

### **4.1 General conditions**

In the implementation of an STS-based system, several parties require the right to use a SGC granted by the STSA. The conditions regarding the rights of use of a SGC for the various parties are contained in this document.

In this document, the rules governing the rights, allocation, and use of an SGC shall apply equally to both an SGC User and SGC sub-User unless otherwise stated.

In all cases the SGC shall be allocated to a SGC User in accordance with the rules for the allocation of SGCs as published by the STSA in STS 401-1.

Only an existing Juristic Person shall be eligible to apply for and be granted the right to use a SGC.

If the use of the SGC falls within the jurisdiction of a Utility, then the SGC Applicant shall obtain and submit the written approval from such Utility that such SGC Applicant may use a SGC in that Utility's jurisdiction. Any exceptions shall be stated in the said letter from the Utility

In the case where a SGC User wishes to transfer, cede or assign his rights of use of an allocated SGC, such SGC User shall obtain the prior written consent of the STSA, which consent the STSA may withhold.

### **4.2 Utilities**

A Utility may be allocated one or more SGCs for its own use and may distribute these to Token Vendors or Meter Manufacturers as required to conduct its normal business. The transfer of such SGCs shall make use of the existing secure infrastructure and processes provided by the STSA key management system.

### **4.3 Sub-Metering Entities**

Allocation and rights of use of a SGC by a Sub-Metering Entity shall be subject to the approval by the Utility as contemplated in clause 4.1.

### **4.4 Meter Manufacturers**

Allocation and rights of use of a SGC by a Meter Manufacturer shall be limited to the demonstration of products and shall not be used in an operational meter installation.

Use of a distributed SGC by a Meter Manufacturer shall be limited to the coding of payment meters to the following states:

- 1) A universal default SGC;
- 2) A customer default SGC;
- 3) A customer unique/common SGC.

A Meter Manufacturer shall not use vending security modules for the above operations, but shall only use manufacturing security modules appropriately provisioned for this purpose.

### **4.5 Vending System Manufacturers**

Allocation and rights of use of a SGC by a Vending System Manufacturer shall be limited to the demonstration of products and shall not be used in an operational meter installation.

In the case where a Vending System Manufacturer also wishes to vend tokens to an operational meter installation, it shall apply for the rights of use of a SGC as a Token Vendor.

### **4.6 Token Vendors**

Allocation and rights of use of a SGC by a Token Vendor shall be subject to the approval of the Utility as contemplated in clause 4.1.

## 5 STSA jurisdiction

The STSA shall retain the right to immediately revoke any SGC if a SGC User is found by the STSA or by an appropriate Court having jurisdiction to be contravening any of the conditions set out in this document, any other conditions imposed by the STSA from time to time or any applicable law, and will no longer be allowed to apply for, or be granted rights of use of any SGC.

A SGC granted to a SGC User is not transferable and a SGC User may not transfer to any third party the SGC granted to it by the STSA unless it has first obtained the STSA's prior written approval, which the STSA may decline or grant with or without conditions.

In all cases where the conditions to the rights of use of a SGC have been contravened, and without prejudice to any other rights that the STSA may have in law or in terms of this document, due legal process shall be followed by all concerned parties to attempt to resolve the issue.

The SGC User and/or SGC sub-User authorises the STSA to use and/or disseminate any information (including personal information and special personal information as defined in clause 6 below) to any person for the purpose of or pertaining to determining whether a SGC User and/or SGC sub-User has complied or is complying with the terms and conditions set forth in this document, or otherwise imposed including, without limitation, for investigating, commencing or running legal proceedings relevant to any claim relating to a contravention of the conditions to the rights of use of a SGC.

This document will be governed in all respects by the laws of South Africa and the SGC Applicant submits to the jurisdiction of the High Courts of South Africa.

## 6 Processing of Personal Information

By completing the SGC Application Form and sending it to the STSA (or its nominee), the SGC Applicant (which shall for the purposes of this clause also include its authorised representative who completed the SGC Application Form and the SGC User or SGC sub-User, if the SGC Applicant later becomes a SGC User) consents to and agrees that:

- 1) the STSA may collect personal information and/or special personal information as defined in POPIA ("Personal Information") from the SGC Applicant and where necessary from any other source for the purpose of the STSA developing, maintaining and promoting the local and international use of the STS in general, and including, without limitation, for the purpose of executing any rights and obligations that it may have in relation to the SGC Applicant or any matter in respect of which the SGC Applicant and/or the Personal information applies, issuing a SGC to the SGC Applicant, the preservation of data which is, or which may be applicable to any claim or dispute, and the maintenance of reasonable, accurate and complete historical record keeping ("the Purpose");
- 2) the Purpose is fair and legitimate for the STSA, so that it can comply with law, contract with the SGC Applicant and manage the concomitant relationship and other matters arising from it;
- 3) the STSA may use and/or disclose Personal Information or any other information to any person (in any geographic area) that the STSA, acting reasonably, deems desirable for the Purpose but to the extent that the STSA is requested by any person to disclose any such information, the STSA will only disclose that information if the person requesting it has followed the process (if any) prescribed by applicable law or by the STSA from time to time to do so;
- 4) the STSA may retain Personal Information in any form, for as long as the STSA in its sole discretion deems desirable for the Purpose;
- 5) the STSA may process any correspondence, in any form, to and from the SGC Applicant, to do with any matter pertaining to the SGC Applicant; and
- 6) notwithstanding the provisions contained in paragraph 7 below, in terms of section 18(4) of POPIA, the SGC Applicant does not require the STSA to comply with all of the provisions of section 18(1) of POPIA.



- 7) The SGC Applicant, subject to what is said in paragraph 6, is hereby informed that the provisions of section 18(1) of POPIA state that:

*"a responsible party must take reasonably practicable steps to ensure that the data subject is aware of:*

- a) the information being collected and where the information is not collected from the data subject, the source from which it is collected;*
- b) the name and address of the responsible party;*
- c) the purpose for which the information is being collected;*
- d) whether or not the supply of information by the data subject is voluntary or mandatory;*
- e) the consequences of failure to provide the information;*
- f) any particular law authorising or requiring the collection of the information;*
- g) the fact that, where applicable, the responsible party intends to transfer the information to a third country or international organisation and the level of protection afforded to the information by that third country or international organisation;*
- h) any further information such as the:*
  - i) recipient or category of recipients of the information;*
  - ii) nature or category of the information;*
  - iii) existence of the right of access to and the right to rectify the information collected;*
  - iv) existence of the right to object to the processing of personal information as referred to in Section 11(3); and*
  - v) right to lodge a complaint to the information regulator and the contract details and the information regulator, which is necessary, having regard to the specific circumstances in which the information is or is not to be processed, to enable processing in respect of the data subject to be reasonable."*