

STS ASSOCIATION CHAIRMAN'S REPORT

in review of the period 15 May 2017 to 14 May 2018

Final

1 High-lights

- Traditionally there has been a single source of supply for secure modules, which presented a substantial risk to users of STS products and systems. A specially commissioned task team investigated the situation and concluded that the only practically viable option was to encourage more suppliers to enter the market. In support of this the STSA published the HSM API and updated the certification test specifications STS531 suite.
- The STSA TID rollover campaign has started, with the aim to alert all STS product users to the fact that the 2024 TID rollover date is not too far off and thus to encourage them to start the process of the special TID rollover key change of all meters as soon as possible. There is a particular concern regarding meters that were certified prior to 2012. There is a possibility that some of these meters may not have implemented the TID rollover key change function correctly, so the STSA will assist in identifying these meters and performing a test in order to validate this functionality.
- STS Edition 2 has now been launched as a suite of standards and specifications providing enhanced levels of security and supported by STS600-4-2 and IEC 62055-41 Ed3. As from 1st June 2019 products will only be certified for STS Edition 2 compliance. All certificates for meters certified before this date will continue to be valid, but certificates for vending systems will expire on 31st May 2019.
- The KMC is now fully operational in compliance with STS Edition 2 requirements. Hardware secure modules are available with STS Edition 2 firmware, while existing secure modules TSM250 and TSM500 with legacy firmware may be upgraded to STS Edition 2.
- IEC 62055-41 Ed3 has been published and is available from the IEC web store. This edition mainly incorporates the enhanced security levels in support of STS 600-4-2.
- Product certification test specifications (CTS) have kept pace with STS Edition 2 developments and are up to date, except for validating hardware secure modules with respect to the new key load file protocol and KMC testing platform. We expect this to be ready by Q3.
- The rules for self certification of meters and vending systems have changed in order to reduce the risk associated with the earlier process. Please see STS2100-3 Procedure for STS Product Certification for more detail.
- The following items are currently under development:
 - Specification for bulk data transfer to and from the meter;

- Requirements for hardware secure modules;
- Guidelines for manufacturers of STS compliant products;
- COP for the operation of a KMC.

2 STSA publications

A complete list of published documents is shown in the table below.

The **yellow** high-lights indicate those documents that changed or those that were newly added during the past year.

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
STS 101-1	1	PUB	Physical layer for virtual token carrier
STS 101-2	1.4	PUB	Physical layer for STS over DLMS/COSEM
STS 200-1	1.1	PUB	Generic classes for meter function objects
STS 201-15.1.0	1	withdrawn	Meter function object: RegisterTable
STS 201-15.1.1	1.1	withdrawn	Meter function object: RegisterTable
STS 201-15.1.2	1	withdrawn	Meter function object: RegisterTable
STS 201-1	1	PUB	Meter function object: RegisterTable
STS 202-1	2.4	PUB	Currency token
STS 202-2	1.2	PUB	Group coded tokens for 2 and 4 digit man codes
STS 202-3	1.6	PUB	Addendum to IEC 62055-41 Ed 2
STS 202-4	1	PUB	Addendum to IEC 62055-52 Ed 1
STS 202-5	1	CD	Addendum to IEC 62055-41 Ed 2
STS 202-6	1.1	PUB	Addendum to IEC 62055-41 Ed 2
STS203-1	1	PUB	Addendum to IEC 62055-41 Ed 2
STS 401-1	1.2	PUB	COP for the Allocation of Supply Group Codes
STS 401-2	1	PUB	COP for the registration of new members
STS 402-1	1.1	PUB	COP for the Management of Token ID Rollover
STS 403-1	1.1	PUB	COP for the Issuance of Manufacturer Codes
STS 404-1	1.1	PUB	COP for the Issuance STS tables
STS 405-1	1.2	PUB	COP for the Management of Key-changes for Sub Vendors
STS 406-1	1	PUB	COP for the Management of risk within the STS Association
STS 406-2-1	1	PUB	COP for KMC risk analysis
STS 406-3	1	CD	COP for the management of secure modules

STS 501 suite	1	withdrawn	Compliance test specification suite for electricity
STS 502 suite	1	withdrawn	Compliance test specification suite for water
STS 503 suite	1	withdrawn	Compliance test specification suite for gas
STS 521 suite	1	withdrawn	Compliance test specification suite for electricity 4 digit codes
STS 522 suite	1	withdrawn	Compliance test specification suite for water 4 digit codes
STS 523 suite	1	withdrawn	Compliance test specification suite for gas 4 digit codes
STS 531-0	1.8.1	PUB	Compliance test specification - Quality plan
STS 531-1-0-02	1.8.1	PUB	Compliance test specification - Entity type A for EA07
STS 531-1-0-04	1.8.1	PUB	Compliance test specification - Entity type A for EA11
STS 531-2-1	1.8.1	PUB	Compliance test specification - Entity type B
STS 531-3	1.8.1	PUB	Compliance test specification - Entity type C
STS 531-4	1.8.1	PUB	Compliance test specification - Entity type D
STS 531-5-0	1.8.1	PUB	Compliance test specification - Entity type E
STS 531-6-1-07	1.8.1	PUB	Compliance test specification - Entity type F for EA07
STS 531-6-1-11	1.8.1	PUB	Compliance test specification - Entity type F for EA11
STS 531-8-1	1.8.1	PUB	Compliance test specification - Entity type H
STS 531-8-2	1.8.1	PUB	Compliance test specification - Entity type H for DKG04 and EA11
STS 531-10-02	1.8.1	PUB	Compliance test specification - Entity type H1
STS 531-10-04	1.8.1	PUB	Compliance test specification - Entity type H1
STS 600-4-1	1.1	withdrawn	Distributed Key Management System – initial specifications
STS 600-4-2	1.1	PUB	Distributed Key Management System
STS 600-7	1	PUB	Key load file specification
STS 600-8-1	1	PUB	Secure module API specification
STS 600-8-2	1	PUB	Secure module API specification
STS 600-8-3	1	PUB	Secure module API specification
STS 600-8-4	1	PUB	Secure module API specification
STS 600-8-5	1	PUB	Secure module API specification
STS 600-8-6	1	PUB	Secure module API specification
STS 600-15-1	1.4	PUB	KMC capture form specification
STS 600-15-2	1.5	PUB	KMC capture form specification
STS 600-15-3	1.7	PUB	KMC capture form specification

STS 600-15-4	1.5	PUB	KMC capture form specification
STS 600-15-5	1.6	PUB	KMC capture form specification
STS 600-15-6	1.1	PUB	KMC capture form specification
STS 600-15-7	1.1	PUB	KMC capture form specification
STS 1700-0	1	PUB	Working group charter
STS 1800-1-1	4	PUB	Handbook for members
STS 1800-1-2	5.1	PUB	Brochure - English
STS 1800-1-2-2	1	PUB	Brochure - French
STS 1800-1-2-3	1	PUB	Brochure - Portuguese
STS 1800-1-2-4	1	PUB	Brochure - Spanish
STS 1800-1-3	2	PUB	STS Synopsis
STS 1800-1-4	1	PUB	Explanatory notes for IEC 62055-41 Ed2
STS 1800-5	1	PUB	Disaster recovery procedure
STS 1800-6	1	PUB	KMC forms guidelines
STS 1900-1-1	1	withdrawn	Articles of Association (replaced by STS 1900-1-3)
STS 1900-1-2	1	withdrawn	Memorandum of Association (replaced by STS 1900-1-3)
STS 1900-1-3	1.1	PUB	Memorandum of Incorporation
STS 1900-2-1	1	PUB	License & Membership Agreement
STS 2000-1	1.3	PUB	Intellectual Property Rights
STS 2001-1	1	PUB	Competition law policy
STS 2002-1	1.3	PUB	Conflict of interest policy
STS 2003-1	1	PUB	Logo usage policy
STS 2100-1	1	PUB	Procedure for the development of standards and codes of practice
STS 2100-3	1.6	PUB	Procedure for STS Product Certification
STS 2100-4	2	PUB	Membership and Licence Holder processes

3 IEC TC13 liaison report

3.1 General

The STS Association is the Registration Authority on behalf of the IEC in support of the IEC 62055 STS suite of standards.

Informal liaison with IEC TC13 on smart metering standards is facilitated by Don Taylor who is a ZA expert on WG14, WG15 and JWG16.

Yellow high-lights indicate latest changes.

3.2 Metrology IEC 62052 and IEC 62053 series

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
IEC 62052-11	2	CD	General requirements - metering equipment
IEC 62052-21	1 A1	pub	General requirements - tariff and load control equipment
IEC 62052-31	2	DC	General requirements - Safety requirements

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
IEC 62053-11	1 A1	pub	Particular requirements - electro mechanical class 0.5, 1, 2
IEC 62053-21	2	CD	Particular requirements - static active class 1, 2
IEC 62053-22	2	CD	Particular requirements - static active class 0.2S, 0.5S
IEC 62053-23	2	CD	Particular requirements - static reactive class 1, 2
IEC 62053-24	2	CD	Particular requirements - static reactive class 0.5S, 1S, 1
IEC 62053-41	1	CDV	Particular requirements - static DC class 0.5, 1, 2

3.3 Ripple control and time switches IEC 62054 series

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
IEC 62054-11	1 A1	pub	Particular requirements - ripple control receivers
IEC 62054-21	1 A1	pub	Particular requirements - time switches

3.4 Payment metering systems IEC 62055 series

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
IEC 62055-1-0	1	draft	Interoperability framework for smart metering functions and processes
IEC 62055-21	1	pub	Standardization framework for payment systems
IEC 62055-31	2	draft	Type test for payment metering functions
IEC 62055-41	3	pub	STS application layer
IEC 62055-51	1	pub	STS physical layer for numeric and magnetic tokens

IEC 62055-52	2	draft	STS physical layer for virtual token carrier
IEC 62055-53	1	draft	STS physical layer for STS over DLMS/COSEM
IEC 62055-61	1	draft	Business functions for payment systems
IEC 62055-71	1	draft	Business processes for payment systems

3.5 Smart metering communications IEC 62056 series

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
IEC 62056-1-0	1	pub	Smart metering framework
IEC 62056-1-1	1	pub	Profile template
IEC 62056-3-1	1	pub	Use of local area networks on twisted pair with carrier signalling
IEC 62056-3-2	1	NP	Local interface using twisted pair with carrier signalling
IEC 62056-4-7	2	pub	Transport layer for IPV4 networks
IEC 62056-5-3	3	pub	DLMS/COSEM application layer
IEC 62056-5-3-8	1	NP	Smart Message Language SML
IEC 62056-6-1	3	pub	DLMS/COSEM OBIS codes
IEC 62056-6-2	3	pub	DLMS/COSEM interface classes
IEC 62056-6-9	1	pub	CIM/DLMS/COSEM mapping
IEC 62056-7-3	1	pub	MBUS profile
IEC 62056-7-5	1	pub	Direct local data exchange (LDTI - one way comms)
IEC 62056-7-6	1	pub	Profile for HDLC networks
IEC 62056-8-3	1	pub	Profile for S-FSK PLC networks
IEC 62056-8-4	1	CDV	Profile for narrow-band OFDM PLC PRIME
IEC 62056-8-5	1	pub	Profile for narrow-band OFDM G3-PLC
IEC 62056-8-6	1	pub	Profile for high speed PLC
IEC 62056-8-8	1	CD	Profile for ISO/IEC 14908 series networks
IEC 62056-8-20	1	pub	Profile for mesh networks
IEC/TS 62056-9-1	1	pub	Profile for web-services
IEC/TS 62056-9-7	1	pub	Profile for TCP-UDP/IP networks

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
IEC 62056-46		pub	DLL HDLC protocol
IEC 62056-42		pub	PHY connection orientated exchange
IEC 62056-21		pub	PHY direct local data exchange

4 IEC TC57 liaison report

Informal liaison with IEC TC57 on smart grid standards is facilitated by Don Taylor who is a ZA expert on WG14.

The following standards are of interest to parties wishing to integrate metering systems with ERP level systems or with 3rd party systems.

Yellow high-lights indicate latest changes.

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
IEC 61850-80-4	1	PUB	DLMS/COSEM mapping to 61850 data models
IEC 61970-301	6	PUB	CIM base model
IEC 61968-1	3	DRAFT	Interface architecture
IEC 61968-2	2	PUB	Glossary
IEC 61968-3	2	PUB	Network operations
IEC 61968-4	2	DRAFT	Asset management
IEC 61968-5	1	NP	Distributed energy optimisation
IEC 61968-6	1	PUB	Maintenance + construction
IEC 61968-8	1	PUB	Customer support
IEC 61968-9	2	PUB	Meter reading + control
IEC 61968-900	1	PUB	Getting started with IEC 61968-9
IEC 61968-11	3	CDV	CIM for distribution
IEC 61968-13	2	CD	Model exchange
IEC 61968-14	1	PUB	CIM/Multispeak mapping
IEC 61968-100	1	PUB	Implementation profiles

5 DLMS User Association liaison report

The current list of DLMS/COSEM specifications published by the DLMS User Association are listed below.

Yellow high-lights indicate latest changes.

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
1000-1	12	PUB	Blue Book: Interface classes and OBIS identification system
1000-2	8	PUB	Green Book: Architecture and Protocols
1001-1	5	PUB	Yellow Book: DLMS/COSEM conformance testing process
1002	1	PUB	White Book: Glossary of terms

6 Administration

There were 6 Management Board meetings held to manage the operations of the STSA. The travel and time cost of these meetings and the time spent on STSA business is still being borne by the office bearers, except for those of the Secretariat, Technical Consultant and independent co-opted director.

The management team for the past year:

Name	Representing
Andy Stoner	Co-opted independent director
Dave Tarr	Landis + Gyr
Deon van Rooi	Eskom
Don Taylor	Itron
Franco Pucci	Technical Consultant
Grace Yao	Meter manufacturers
Jean Venter	Secretariat
Kobus van den Berg	Association of Municipal Electricity Utilities
Lance Hawkins-Dady	Conlog
Lebina Tsepe	Vending system manufacturers
Richard Mccurrach	Eskom (alternative for Deon van Rooi)
Robert Liang	Alternative for Grace Yao
Shawn O'Neill	HSM manufacturers

We thank all the officers for their valuable services during the past year.

7 Legal and Constitutional

The escrow agreement with Prism for access to the hardware secure module and KMC software IP is still not in place. We expect this to be completed during the course of the coming year.

The MOU between STS Association and Eskom for the key management services is still not in place. We expect this to be completed during the course of the coming year.

8 Financial

An audited financial report is tabled at the AGM.

9 Membership status

(As at 14th May 2018 in alphabetical order)

	Voting members	Country
1	ADD Production	Moldova
2	Amanzi Meters (Pty) Ltd	South Africa
3	Apator SA	Poland
4	Beijing Xiaocheng Technology Stock Co.,Ltd	China
5	Bizswitch Services	Mauritius
6	Conlog (Pty) Ltd	South Africa
7	DaroMix (Pty) Ltd t/a Shanghai Xielin Sa (Pty) Ltd	South Africa
8	EDMI Ltd	Singapore
9	Egyptian Smart Meters Company	Egypt
10	Elsewedy Electrometer Egypt	Egypt
11	Eskom Holdings SOC Limited	South Africa
12	Excelec International S.A.S	Colombia
13	Ganz Meter Company Ltd. (Itron Hungary)	Hungary
14	Genus Power Infrastructures Limited	India
15	Hangzhou Laison Technology Co., Ltd	China
16	Hangzhou Sunrise Technology Co., Ltd	China
17	Hangzhou Xili Watthour Meter Manufacture Co., Ltd	China
18	Hexing Electrical Co., Ltd.	China
19	Hodi Technologies Limited Company	China
20	Holley Technology Ltd	China
21	HPL Electric and Power Pvt. Ltd	India
22	Huawei Technologies Co., Ltd	China
23	Huizhou Zhongcheng Electronic Technology Co., Ltd	China
24	Ice-Cloud Virtual Products Logistics (Pty) Ltd	South Africa
25	Incotex Systems Ltd	Bulgaria
26	Inhemeter Co Ltd	China
27	iPay Pty Ltd	South Africa
28	Iskraemeco Energy Measurement	Egypt
29	Itron Measurments and Systems (Pty) Ltd	South Africa
30	Janz Contadores de Energia SA	Portugal
31	Jiangsu Linyang Energy Co., Ltd	China
32	Jiangsu Suyuan Jierui Ammeter Co., Ltd	China
33	Kamstrup	South Africa
34	Keahile Communications cc	South Africa
35	Landis + Gyr	South Africa
36	Lee Jong Electrical Co. Sdn. Bhd.	Brunei Darussalam
37	Lesira Manufacturing	South Africa
38	Longshine Technology Limited Company	China
39	MA-MWE Eau et Electricite des Comores	Comores
40	MBH Power and Gas Limited	Ghana
41	Meter Mate Prepaid Electric Meters cc	South Africa
42	Metering Solutions Manufacturing Services (MSMSL)	Nigeria
43	Microstar Electric Company Limited	China
44	Nanjing New Yuneng Technology Co., Ltd	China
45	Nari-Tech Sanneng Instrument (Nanjing) Co., Ltd	China
46	Ningbo Sanxing Smart Electric Co., Ltd	China
47	Ontec Systems Pty Ltd	South Africa
48	Pivot Access	Rwanda
49	PowerCom Metering Africa (Pty) Ltd	South Africa
50	Prism Payment Technologies (Pty) Ltd	South Africa
51	PT Buana Selaras Globalindo	Indonesia
52	PT GERBANG SINERGI PRIMA	Indonesia
53	PT Industri Telekomunikasi Indonesia	Indonesia
54	PT Mandiri Solusindo Perkasa	Indonesia

55	PT Mecoindo - Itron	Indonesia
56	PT Melcoinda	Indonesia
57	PT PLN (Persero)	Indonesia
58	PT. EDMI Indonesia	Indonesia
59	PT. Fuji Dharma Electric	Indonesia
60	PT. Pangung Electric Citrabuana	Indonesia
61	PT. Sistem Mikroelektronika Cerdas Co-Design	Indonesia
62	PT. Smart Meter Indonesia	Indonesia
63	Qingdao Topscmm Communication Co., Ltd	China
64	Quill Associates	South Africa
65	SABRUD Consortium Nig. Ltd	Nigeria
66	Sagemcon Energy & Telecom SAS	France
67	SARL As Consulting	Cote D'ivoire
68	Sebata Municipal Solution (Pty) Ltd	South Africa
69	Sectional Title Support Services (Pty) Ltd	South Africa
70	SGrid International Co., Ltd	China
71	Shenzhen Calinmeter Co., Ltd	China
72	Shenzhen Clou Electronics Co., Ltd	China
73	Shenzhen Constant Electronics Co., LTD	China
74	Shenzhen Londian Electrics Co., Ltd	China
75	Shijiazhuang Kelin Electric Co., Ltd	China
76	SIAME	Tunisia
77	Sudanese Electricity Distribution Co. Ltd	Sudan
78	Syntell (Pty) Ltd	South Africa
79	Techno Electricals Limited	Dhaka
80	Unistar Hi-Tech Systems Limited	Nigeria
81	Universal Microelectronics Co., Ltd	Taiwan
82	Wasion Group Limited	China
83	XJ Metering Co., Ltd	China
84	Yantai Dongfang Wisdom Electric Co., Ltd	China
85	Zhangzhou Keneng Electrical Equipement Co., Ltd	China
86	Zhejiang Chint Instrument & Meter Co., Ltd	China
87	Zhejiang Hengye Electronics Co., Ltd	China
88	Zhejiang Joy Electronic Technology Co., Ltd	China
89	Zhejiang Reallin Electron Co Ltd	China
90	Zhejiang Risesun Science and Technology Co., Ltd	China
91	Zhejiang Tepsung Electric Meter Co.,LTD	China
92	Zhejiang Wellsun Intelligent Technology Co.,Ltd.	China
93	Zhejiang Yongtailong Electronic Co., Ltd	China
94	ZTE Corporation	China

	Non-voting members	Country
1	Abuja Electricity Distribution Company	Nigeria
2	Actom Protection and Control	South Africa
3	Adroit Metering Services Ltd	Nigeria
4	Anta Mediakom	Indonesia
5	Arthur D Riley & Co. Ltd	New Zealand
6	Avon Meters PVT Ltd	India
7	Baylan Meters	Turkey
8	Beijing Banner Electric Co., Ltd.	China
9	Cashpower Sudamericana S.A	Argentina
10	ChinaSoft International	China
11	Chinasoft International Technology Services Ltd	China
12	Circutor SA	Spain
13	CITIQ Meter Solutions	South Africa
14	Contact Energy Ltd	New Zealand
15	Contour Technology (Pty)Ltd	South Africa
16	Daesung Measuring Co., Ltd	Korea
17	EDMI Shenzhen Co., Ltd	China
18	e-Gee	France
19	Electricité de Madagascar	Madagascar
20	Empire Microsystems Ltd	Kenya
21	EMS Invirotel Energy Management (PTY) LTD	South Africa

22	Enbaya Prepaid Meters CC	South Africa
23	ENEL d.o.o.Beograd	Serbia
24	Energy Management Systems Co Ltd	Taiwan
25	ENT Korea	Korea
26	e-Solutions (Pvt.)Ltd	Zimbabwe
27	Giertsen Energy Solutions AS	Norway
28	Global Evolution Lighting	Tunisia
29	Hangzhou Meteronic Technology Co., Ltd	China
30	Hangzhou Shanergy Metering Co., Ltd	China
31	Hangzhou Uenergy Co Ltd	China
32	Hangzhou Zone Electric Co., Ltd	China
33	Hardware Development Section E & D Advanced Electronic Company	Saudi Arabia
34	Hexing Technology Company Limited	Kenya
35	Holistic Systems	South Africa
36	Honeywell Smart Energy LE Elster Kent Metering Pty Ltd	South Africa
37	Huauhua Jiannan Machinery Factory Co., Ltd	China
38	Hydro Ingenierie Etudes Et Realisations	Madagascar
39	ID2 Infastructure Systems Pty Ltd	South Africa
40	IMS Electrical	South Africa
41	Indra Sistemas S.A.	Spain
42	Inhemeter Africa Company Limited	Kenya
43	Innovation Renewable Energy	Qatar
44	International Utility Brokers	South Africa
45	iSoftstone Technology Service Company Limited	China
46	Itron Gmbh	Germany
47	Jager Technologies Pty Ltd	South Africa
48	Jiaxing Xinghao Instrument Co., Ltd	China
49	Kani Smart Works (Pty) Ltd	South Africa
50	Kepid Amstech Co Ltd	Korea
51	Larsen & Toubro Limited	India
52	Lilongwe Water Board	Malawi
53	LL Energy cc	South Africa
54	Metro Prepaid (Pty) Ltd	South Africa
55	Metsec Cables Ltd	Kenya
56	Neat Prepaid Limited	Mauritius
57	Netelek Pty Ltd	South Africa
58	netVendor cc	South Africa
59	NG Electrometer	France
60	Ningbo Aimei Meter Manufacturer Co Ltd	China
61	Ningbo Jianan Electronics Co., Ltd	China
62	Ningxia LGG Instrument Co., Ltd	Indonesia
63	North Smart Equipment Co., Ltd	China
64	Nuri Telecom Co., Ltd	Korea
65	Omnisystems Co Ltd	Korea
66	Pal Mohan Electronics Pvt Ltd	India
67	Power Measurement & Distribution cc	South Africa
68	Prepaid World	South Africa
69	Protea Metering Pty Ltd	South Africa
70	PT Pertamina Niaga	Indonesia
71	PT. Cannet Elektrik Indonesia	Indonesia
72	Qingdao iTechene Technologies Co., Ltd.	China
73	Remote Metering Solutions (Pty) Ltd	Ghana
74	Renesas Electronics Singapore Pte Ltd	Singapore
75	Scuba Technologies Ltd	Bangladesh
76	Secure Meters Limited	India
77	Shanghai Jinling Intelligent Electric Meter Co., Ltd	China
78	Shenzhen Golden Square Technology Co., Ltd	China
79	Shenzhen Hemei Group Co., Ltd	China
80	Shenzhen Hexcell Electronics Technology Co., Ltd	China
81	Shenzhen Kaifa Technology (Chengdu) Co., Ltd	China
82	Shenzhen Star Instrument Co.,Ltd	China
83	Shenzhen Techrise Electronics Co., Ltd	China
84	Siemens	South Africa

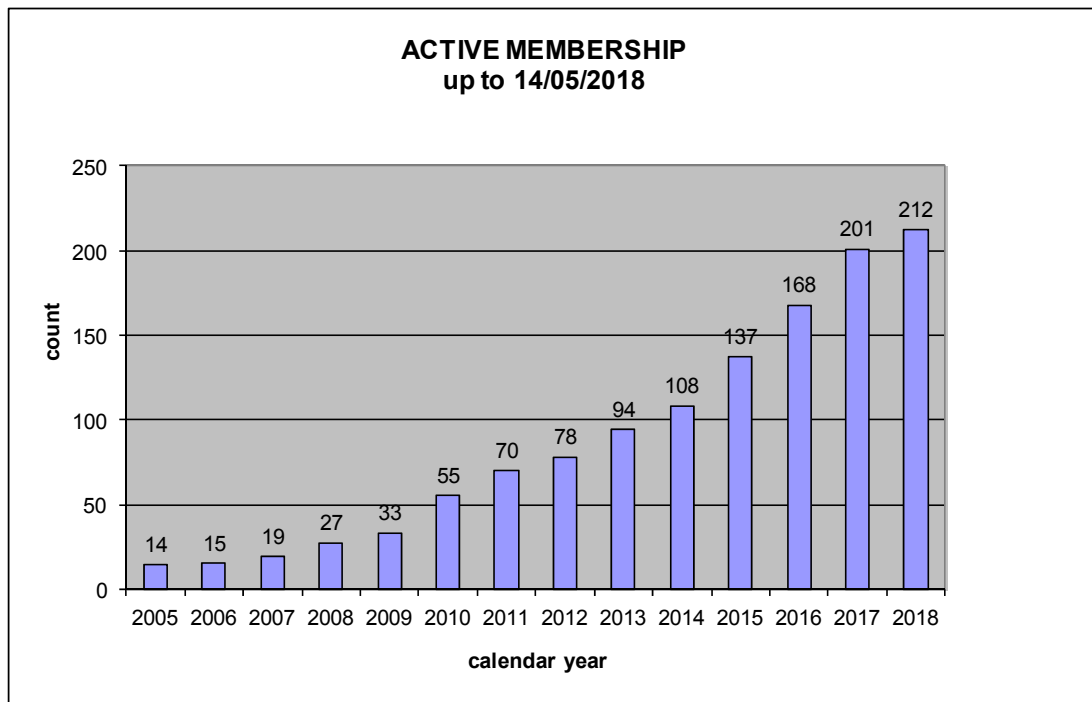
85	SKYRUN ELECTRIC SMART METERING SYSTEMS AND SOLUTIONS(NIG.) LTD	Nigeria
86	Spectrum Utility Management Pty Ltd	South Africa
87	Standard Communication Ltd	Nigeria
88	TBEA Co.,Ltd.	China
89	TBEA Nanjing Intelligent Electric Co., Ltd.	China
90	Telbit	South Africa
91	The Meter Man	South Africa
92	Tinuten Nigeria Limited	Nigeria
93	Urbanise Com (Pty) Ltd	South Africa
94	Utiliflex LLC	USA
95	Utility Systems	South Africa
96	Wuhan Radarking Electronics Corp.	China
97	Yueqing Qicheng Electric Co Ltd	China
98	Zhejiang Amite New Energy Co., Ltd	China
99	Zhejiang Gomelong Meter Co., Ltd	China
100	Zhejiang Huayi Electronic Co.,Ltd.	China
101	Zhejiang Songxia Electric Meter Co., Ltd	China
102	Zhejiang Xintuo New Energy Co., Ltd	China
103	Zhuhai Yujian Science and Technology Co., Ltd	China

Pending members

		Country
1	Arklabs Co. Ltd	South Africa
2	Bentec Lighting LLP	India
3	Calluna Trading 501 cc	South Africa
4	Capital Power Systems Ltd	India
5	Dynamo Digital Company Limited	Kenya
6	Earthview Management Limited	Kenya
7	Enlight Energy Solutions (Pty) Ltd	South Africa
8	Köhler Elektrik Sayaçları San. ve Tic. A.S.	South Africa
9	L'Office National de l'Electricité et de l'Eau Potable -Branche Electricité (ONEE-BE)	Morocco
10	Mojec International Limited	Nigeria
11	MSM Co Ltd	Korea
12	Prepaid Gateway Pty Ltd	South Africa
13	PT Indonesia Comnets Plus	Indonesia
14	Sumeru Verde Technologies Pvt Ltd	India
15	Velankani Electronics Private Limited	India

212 TOTAL MEMBERS

Membership growth



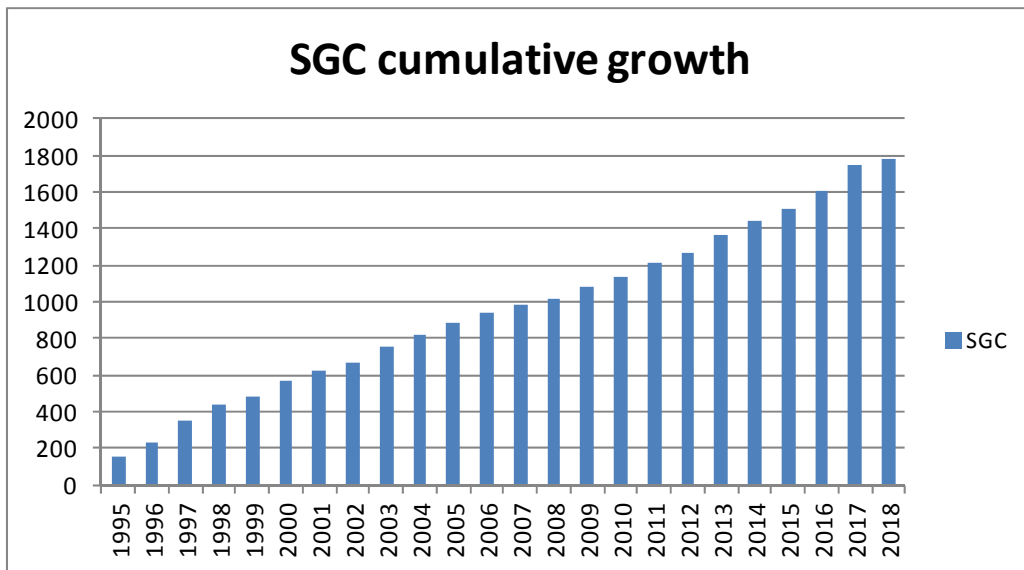
Membership by country as on 14 May 2018

(Ordered by weight)

1	China	69
2	South Africa	49
3	Indonesia	17
4	India	10
5	Nigeria	9
6	Kenya	6
7	Korea	6
8	Egypt	3
9	France	3
10	Ghana	2
11	Madagascar	2
12	Mauritius	2
13	New Zealand	2
14	Singapore	2
15	Spain	2
16	Taiwan	2
18	Tunisia	2
19	Argentina	1
20	Bangladesh	1
21	Brunei Darussalam	1
22	Bulgaria	1
23	Colombia	1
24	Comores	1
25	Cote D'ivoire	1
26	Dhaka	1
27	Germany	1
28	Hungary	1
29	Malawi	1
30	Moldova	1
31	Morocco	1
32	Norway	1
33	Poland	1

34	Portugal	1
35	Qatar	1
36	Rwanda	1
37	Saudi Arabia	1
38	Serbia	1
39	Sudan	1
40	Turkey	1
41	USA	1
42	Zimbabwe	1
TOTAL		212

10 STS deployment



- 1780 SGC keys hosted by the KMC
- 109 countries are using STS products
- 35 out of 85 IEC countries are using STS products
- 687 products are STS certified
- 177 manufacturing codes have been allocated.

- End of report -

Don Taylor
Chairman ,STS Association
14th May 2018.