
**STANDARD TRANSFER SPECIFICATION
ASSOCIATION (NPC)**



ANNUAL GENERAL MEETING

MINUTES

DATE: 12 May 2014

TIME: 10:00-12:00

VENUE: Cape Town ICC, South Africa

Mr Andy Stoner (Acting Chair)	Landis+Gyr	Present
Mr Don Taylor	Itron	Apology
Mr Lance Hawkins-Dady	Conlog	Present
Mr Deon van Rooi	Eskom	Present
Mr Kobus van den Berg	AMEU	Present
Mr Bruce Barrett	Vending System Manufacturers	Apology
Mr Andjar Firmansjah	Meter Manufacturers	Apology
Mr Rully Fasri	End Users	Apology
Mr Imraan Mohamed	Itron	Present
Ms Reneé Basson	Netvendor	Present
Mr Franco Pucci	Technical Consultant	Present
Mr Jean Venter	General Secretary	Present

1. WELCOME AND APOLOGIES

Mr Stoner welcomed members present and noted apologies from Messrs Taylor, Barrett, Firmansjah, Fasri and members PT Fuji Dharma Electric, PT Hexing Technologies, Microstar Electric Company, Universal MicroElectronics and Nanjing Yuneng Instruments. It was **NOTED** that a quorum was present.

2. READING AND CONFIRMATION OF THE AGENDA

The members adopted the agenda of the meeting.

3. READING AND CONFIRMATION OF PREVIOUS MINUTES

Members **CONFIRMED** the minutes of the Annual General meeting that was held on 13 May 2013.

4. CHAIRMAN'S REPORT "A"

Mr Stoner then tabled a report on behalf of the chairman, Mr Taylor. The report was recirculated to members who then **ADOPTED** the report. Members were advised to note significant changes to the standard outlined in section 4 of the report.

5. AUDITED ANNUAL FINANCIAL STATEMENTS

The treasurer tabled audited annual financial statements for the year ended December 2013. The audit report was unqualified and a healthy surplus of R2.8m for the year was noted. **AGREED** to adopt the audited annual financial statements for the year 2013 as tabled.

6. MEMORANDUM OF INCORPORATION

The members then considered a new memorandum of incorporation for the organisation. The need for the document arose because of a change in the company's act of the Republic of South Africa, which did away with the older memorandum and articles of association incorporation document and replaced it with this new format. The salient parts of the founding document remained as close to identical as is legally permitted. The members then voted by a show of hands unopposed.

RESOLVED that the memorandum of incorporation tabled be and are hereby adopted as the memorandum of incorporation of the company; and the memorandum and articles of association of the company be and are hereby substituted by the memorandum of incorporation so adopted.

7. ELECTION OF DIRECTORS

The secretary advised that nominations for new directors were received from Messrs Andjar Firmansjah of PT Industry Telekomunikasi Indonesia in the Meter Manufacturer Class and Mr Satri Falanu of PT PLN (Persero) in the End User Class. It was noted that no nominations were received for the Vendor Class- Mr Barrett had previously indicated that he was not available for re-election. Members were elected unopposed.

RESOLVED that Messrs Falanu and Firmansjah be elected and deemed to have been elected at this Annual General Meeting, and are hereby nominated for appointment as directors, each to represent, on the Management Board, the class of Members that nominated such representatives, such appointment to be approved and confirmed by the Management Board unless any such appointment is in contravention of the Act or the Memorandum of Incorporation of the STS Association.

8. CLOSURE

The chairman thanked members and closed the meeting.

THUS READ AND CONFIRMED

CHAIRMAN

DATE



ANNUAL REPORT

by the chairman of the STS Association in review of the period

13 May 2013 to 11 May 2014

Ver 1.1

1 STSA published documents

A complete list of documents are shown in the table below.

Note the following new work items in progress:

- STS 101-2 providing for STS tokens to be sent over a remote DLMS/COSEM connection.
- STS 201-15.1.1 proving an extended register set for currency token transfer and catering for 4 digit manufacturing codes.
- STS 202-2 solving issues related to group coded tokens for 4 digit manufacturer codes.
- STS 405-1 setting rules for dealing with sub-vendor key change issues.
- STS 406-1 directive/policy for managing risk in the STSA.

<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	draft	Physical layer for STS over DLMS/COSEM
STS 200-1	1	pub	Generic classes for meter function objects
STS 201-15.1.0	1	pub	Meter function object: RegisterTable
STS 201-15.1.1	1	CDV	Meter function object: RegisterTable including currency
STS 202-1	1	pub	Currency token
STS 202-2	1	draft	Group coded tokens for 2 and 4 digit man codes
STS 401-1	1.1	pub	COP for the Allocation of Supply Group Codes

STS 402-1	1	pub	COP for the Management of Token ID Rollover
STS 403-1	1.1	pub	COP for the Issuance of Manufacturer Codes
STS 405-1	1	CDV	Sub-vendor rules
STS 406-1	1	draft	Risk management directive
STS 501 suite	1	pub	Compliance test specification suite for electricity
STS 502 suite	1	pub	Compliance test specification suite for water
STS 503 suite	1	pub	Compliance test specification suite for gas
STS 521 suite	1	pub	Compliance test specification suite for electricity 4 digit codes
STS 522 suite	1	pub	Compliance test specification suite for water 4 digit codes
STS 523 suite	1	pub	Compliance test specification suite for gas 4 digit codes
STS 600-4-1	1.1	pub	Distributed Key Management System
STS 1800-1-1	4	pub	Handbook for members
STS 1800-1-2-1	3	pub	Brochure - English
STS 1800-1-2-2	3	pub	Brochure - French
STS 1800-1-2-3	3	pub	Brochure - Portuguese
STS 1800-1-2-4	3	pub	Brochure - Spanish
STS 1800-1-3	1.3	pub	STS Synopsis
STS 1900-1-1	1	pub	Articles of Association
STS 1900-1-2	1	pub	Memorandum of Association
STS 1900-1-3	1	pub	Memorandum of Incorporation
STS 1900-2-1	1	pub	License & Membership Agreement
STS 2000-1	1.3	pub	Intellectual Property Rights
STS 2100-1	1	pub	Procedure for the development of standards and codes of practice
STS 2100-3	1.3	pub	Procedure for STS Product Certification
STS 2100-4	1	pub	Membership and Licence Holder processes

2 IEC TC57 standards relevant to Smart Grid integration

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

Of specific relevance to payment metering systems is the current work on IEC 61968-9 Ed3 for meter reading and control.

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

3 IEC TC13 standards relevant to Smart Meter data exchange

IEC TC13 standards are in the process of being re-structured in order to meet the developing requirements for interoperability and interchange-ability of devices and equipment within the smart meter and smart grid environments, thus allowing better integration of these two domains.

IEC 62056-1-0 thus sets the framework and rule-set by which the data exchange standards are to be restructured in order to ensure the interoperability requirements are met.

DLMS/COSEM standards IEC 62056-6-1 and IEC 62056-6-2 provide for semantic interoperability, while IEC 62056-5-3 provides for syntax interoperability of devices and equipment in the smart metering domain. The network interoperability is achieved by means of standard data exchange network profiles as can be seen in the table below.

<u>Doc No</u>	<u>Ed</u>	<u>Stage</u>	<u>Description</u>
IEC 62056-1-0	1	FDIS	Smart metering framework
IEC 62056-4-7	1	CDV	Profile for IPV4 networks
IEC 62056-5-3	1	pub	DLMS/COSEM application layer
IEC 62056-6-1	1	pub	DLMS/COSEM OBIS codes
IEC 62056-6-2	1	pub	DLMS/COSEM Cosem interface classes

IEC 62056-6-9	1	NP	CIM/DLMS/COSEM mapping
IEC 62056-7-5	1	NP	Direct local data exchange
IEC 62056-7-6	1	pub	Profile for HDLC networks
IEC 62056-8-3	1	pub	Profile for S-FSK PLC networks
IEC 62056-8-6	1	CD	Profile for high speed PLC
IEC 62056-8-20	1	NP	Profile for mesh networks
IEC/TS 62056-9-1	1	NP	Profile for web-services
IEC/TS 62056-9-7	1	pub	Profile for TCP-UDP/IP networks

4 IEC TC13 standards relevant to payment systems

The payment metering system standards are similarly being restructured to provide interoperability at the level of business functions and business processes.

Thus IEC 62055-1-0 is a framework setting out the rules for defining the functions and processes, while IEC 62055-61 defines particular functions and IEC 62055-71 defines particular processes for payment systems. Type test functional requirements for elements within the payment system are being defined in IEC 62055-31.

IEC 62055-41, 62055-51 and 62055-52 remain the primary token transfer standards for prepayment systems.

Changes earmarked for IEC 62055-41 are:

- Enhanced security strength for the vending key to 192 bit and a stronger decoder key generation algorithm to 128 bit.
- Enhanced security for the token encryption algorithm with 128 bit key strength. The MISTY algorithm has been adopted, which is licensed royalty-free from Mitsubishi.
- New token classes to support currency transfer for electricity, water and gas. This will support complex tariffs and multiple accounts in the meter when used in conjunction with the DLMS/COSEM payment interface classes Account, Credit, Charge and TokenGateway.
- New set of key change tokens to manage the 128 bit decoder key.
- New Super Supply Group code to manage the inter-SGC key changes more securely.
- Re-definition of IIN in the case of tokens generated using a DCTK. To ensure that meters in the same SGC do not receive different tokens in a group coded area if there is a mix of 11 and 13 digit DRN meters.
- The introduction of a universal Default Key (DDTK) for all manufacturers to manage the allocation process and operational key changes more effectively.

- Various errors and clarifications in Ed2.

Additional work items are:

- Changes to IEC 62055-52 to include the physical/electrical connections as is currently being referenced to STS 101-1.
- New part to IEC62055-5x series for a new virtual token carrier as defined in STS 101-2 for STS over a two way DLMS/COSEM connection.

<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	draft	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 62055-5x	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

5 DLMS User Association

The STS Association has established a formal liaison with DLMS UA for the purpose of participating in and gaining access to specifications that have not yet been published in IEC TC13. These include new payment interface classes Account, Credit, Charge and TokenGateway currently being published in the DLMS UA Blue Book.

The liaison has also benefitted the development of STS 101-2 for the STS/DLMS/COSEM harmonisation work.

6 New distributed KMS project status

This project is now in the second stage of development and due for production release at the end of 2014. The following mile-stones are noted.

- Phase 1: Completion and publication of the design specification STS 600-4-1 in Feb 2014.
- Phase 2: Development and implementation of the system due for completion around June 2014. This includes a revised HSM to support the new functions.
- Phase 3: Field trial of first system beta release to iron out arising issues – due

to complete at end of 2014.

- Phase 4: Release for production in Q1 2015.

7 Product certification

A second test facility has been accredited, which will help to relieve occasional pressure points during high volume testing operations.

The STS 500 suite is up to date to deal with the enhancements of IEC 62055-41 Ed3, including the VSM used for testing.

A proposal is being considered to simplify the STS 500 suite, with the ultimate aim to be in a position where self-certification would be possible.

8 Administration

There were 7 Management Board meetings held to manage the business 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 and Technical consultant.

The management team for the past year:

Name	Representing
Andjar Firmansjah	Meter Manufacturers
Andy Stoner	Landis + Gyr
Bruce Barrett	Vending System Manufacturers
Deon van Rooi	Eskom
Don Taylor	Itron
Franco Pucci/ Lance Hawkins-Dady	Conlog
Jean Venter	Secretariat
Kobus van den Berg	AMEU
Paul van Niekerk/ Franco Pucci	Technical Consultant
Rully Fasri	PLN

During the course of the year Franco Pucci retired from the services of Conlog and was subsequently succeeded by Lance Hawkins-Dady as Conlog representative. Thanks to Franco for his many years of service to the STSA and the prepayment industry and welcome to Lance.

Paul van Niekerk also retired as technical consultant and was succeeded by Franco Pucci. So, we say thanks to Paul for his years of service and welcome back to Franco in a different role, but at least not lost to the industry.

9 Legal and Constitutional

Changes in the Company's Act in South Africa requires that the Articles Of Association and the Memorandum Of Association be replaced by a single constitutional document now called Memorandum Of Incorporation.

The final version of the Memorandum Of Incorporation is being tabled at the coming AGM with a resolution of acceptance to be put to the vote by members.

10 Financial

An audited financial report is tabled at the AGM.

11 Member status

(As at 7th May 2014 in alphabetical order)

	<u>NAME</u>	<u>COUNTRY</u>
1	ADD Production	Moldova
2	Apator SA	Poland
3	Arthur D Riley & Co. Ltd	New Zealand
4	ATC International Group Limited	Hong Kong
5	Bilview Energy Limited	Nigeria
6	Blueberry Management Services (Pty) Ltd	South Africa
7	Brilliant Telecommunications (Pty) Ltd	South Africa
8	Cashpower Sudamericana S.A	Argentina
9	CITIQ Meter Solutions	South Africa
10	CJSK "Energomera"	Russia
11	Conlog (Pty) Ltd	South Africa
12	Contact Energy Ltd	New Zealand
13	Contour Technology (Pty)Ltd	South Africa
14	Delhi Control Devices Pvt Ltd	India
15	EDMI Ltd	Singapore
16	EDMI Shenzhen Co., Ltd	China
17	Efteq (Pty) Ltd	South Africa
18	Elsewedy Electrometer Egypt	Egypt
19	Empire Hexing Africa Pty Ltd	South Africa
20	Enbaya Prepaid Meters CC	South Africa
21	ENEL d.o.o.Beograd	Serbia
22	Enermatics Energy Pty Ltd	South Africa
23	Eskom	South Africa
24	Excelec International S.A.S	Colombia
25	Flexible Workspace cc	South Africa
26	Fujian Shenzhou Electronic Co., Ltd	China

27	GE Fuji Meter Co., Ltd	Japan
28	Genus Power Infrastructures Limited	India
29	Gettone Tech Limited	China
30	Green Plumbing Technologies	South Africa
31	Grinpal Energy Management Pty Ltd	South Africa
32	Guangzhou Sunrise Electronic Development	China
33	Hangzhou Pax Electronic Technology Co., Ltd	China
34	Hangzhou Sunrise Technology Co., Ltd	China
35	Hangzhou Xili Watthour Meter Manufacture Co., Ltd	China
36	Harbin Electrical Measuring Instrument Group Co., Ltd	China
37	Henan Star Hi-Tech ., Ltd	China
38	Hexing Electrical Co Ltd	China
39	Hibred International	South Africa
40	Hodi Technologies Limited Company	China
41	Holistic Systems	South Africa
42	Holley Metering Ltd	China
43	Home-Grown Business Int cc	South Africa
44	HPL Electric and Power Pvt. Ltd	India
45	Hauzhou BYD Electronic Co., Ltd	China
46	Huizhou Zhongcheng Electronic Technology Co., Ltd	China
47	Ibadan Electricity Distribution Company	Nigeria
48	Ice-Cloud Virtual Products Logistics (Pty) Ltd	South Africa
49	Incotex Systems Ltd	Bulgaria
50	Invirotel EMS Energy Management (Pty) Ltd	South Africa
51	iPay Pty Ltd	South Africa
52	Iskraemeco Energy Measurement	Egypt
53	Itron France SAS	France
54	Itron Gmbh	Germany
55	Itron Metering Solutions South Africa (Pty) Ltd	South Africa
56	Jager Technologies Pty Ltd	South Africa
57	Jiangsu Linyang Electronics Co., Ltd	China

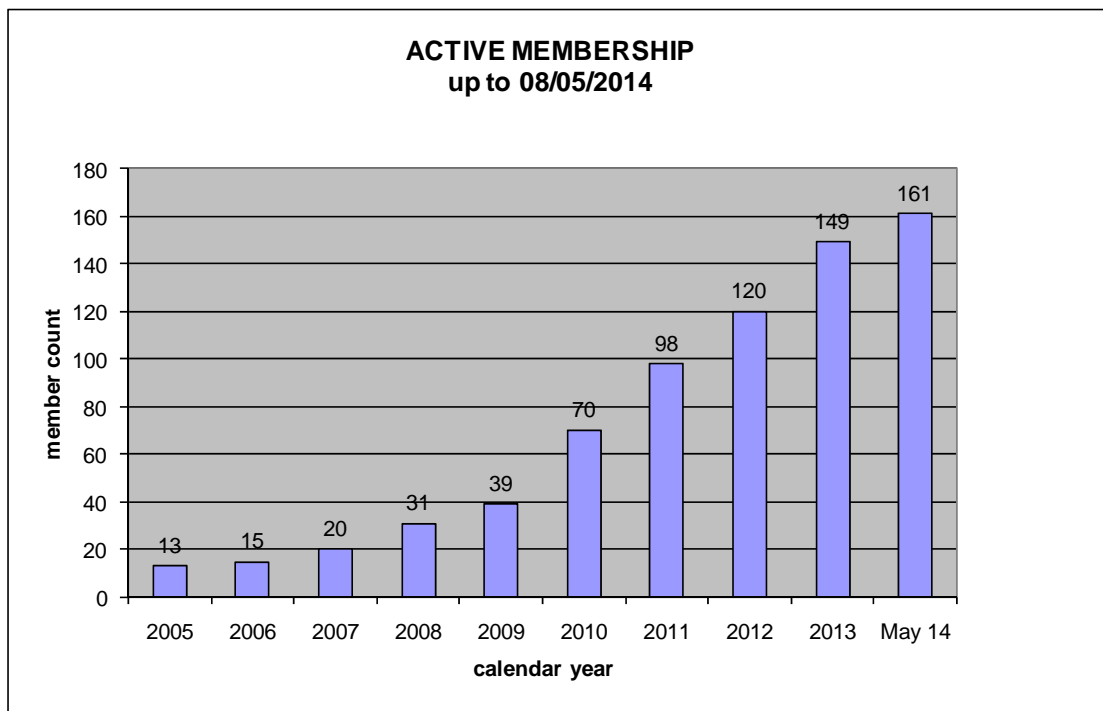
58	Jilin Yongda Group Co., Ltd	China
59	Kampstrup	South Africa
60	Karya Adikita	Indonesia
61	Kepid Amstech Co Ltd	Korea
62	Landis + Gyr	South Africa
63	Landis+Gyr Equipamentos de Medicao Ltda	Brazil
64	Larsen & Toubro Limited	India
65	Linbarco	South Africa
66	Makhensa Mashimbye	South Africa
67	Meinroux Trading Services (Pty) Ltd	South Africa
68	Meter Mate Prepaid Electric Meters cc	South Africa
69	Microstar Electric Company Limited	China
70	Mojec International Limited	Nigeria
71	Momas Systems Nigeria Limited	Nigeria
72	Nanjing Sanneng Instrument Co., Ltd	China
73	Nanjing Yuneng Instrument Co., Ltd	China
74	Neat Prepaid Limited	Mauritius
75	netVendor cc	South Africa
76	NIK-ELEKTRONIKA LLC	Ukraine
77	Ningbo Sanxing Electrix Co., Ltd	China
78	Ningbo Weiji Electric Power Technology Co., Ltd	China
79	Ningxia LGG Instrument Co., Ltd	Indonesia
80	Nyamezela Metering	South Africa
81	Power Meter Technics Pty Ltd	South Africa
82	PowerCom Metering Africa (Pty) Ltd	South Africa
83	Prepaid World	South Africa
84	Prism Payment Technologies (Pty) Ltd	South Africa
85	Protea Metering Pty Ltd	South Africa
86	PT Bumi Indonesia Investment	Indonesia
87	PT Citra Sanxing Indonesia	Indonesia
88	PT Hexing Technology	Indonesia

89	PT Holley Energy Indonesia	Indonesia
90	PT Honoris Industry	Indonesia
91	PT Ilato Meter	Indonesia
92	PT Industri Telekomunikasi Indonesia	Indonesia
93	PT Len Industri (Persero)	Indonesia
94	PT Mandiri Solusindo Perkasa	Indonesia
95	PT Mecoindo - Itron	Indonesia
96	PT Melcoinda	Indonesia
97	PT Mepcon Integra Nusa	Indonesia
98	PT Metbelosa	Indonesia
99	PT PLN (Persero)	Indonesia
100	PT Quandra Labindo	Indonesia
101	PT Rekadaya Gerindo	Indonesia
102	PT TAMCO INDONESIA	Indonesia
103	PT. Citra Interlindo	Indonesia
104	PT. EDM I Indonesia	Indonesia
105	PT. Fuji Dharma Electric	Indonesia
106	PT. Global Meter Industry	Indonesia
107	PT. Hariff Daya Tunggal Engineering	Indonesia
108	PT. Limaputra Vilindo	Indonesia
109	PT. Panggung Electric Citrabuana	Indonesia
110	PT. Prima Meterindo	Indonesia
111	PT. Sinegri Cardas Technology	Indonesia
112	PT. Sistem Mikroelektronika Cerdas Co-Design	Indonesia
113	PT. Smart Meter Indonesia	Indonesia
114	PT. TRG Elektronika Pratama	Indonesia
115	PT. Trisurya Lintas Services	Indonesia
116	Qingdao Techen Electronic Technology Co. Ltd.	China
117	Quill Associates	South Africa
118	Remsystems Pty Ltd	South Afriva
119	Rwanda Electricity Corporation	Rwanda

120	Sagemcon Energy & Telecom SAS	France
121	Sebata Municipal Solution (Pty) Ltd	South Africa
122	Sectional Title Support Services (Pty) Ltd	South Africa
123	Secure Meters Limited	India
124	Shenzhen Clou Electronics Co., Ltd	China
125	Shenzhen Golden Square Technology Co., Ltd	China
126	Shenzhen Haoningda Meters Co., Ltd	China
127	Shenzhen Hexcell Electronic Technology Co., Ltd	China
128	Shenzhen Inhemeter Co., Ltd	China
129	Shenzhen Kaifa Technology Co., Ltd	China
130	Shenzhen Londian Electrics Co., Ltd	China
131	Shenzhen Star Instrument Co.,Ltd	China
132	Shenzhen Techrise Electronics Co., Ltd	China
133	SIAME	Tunisia
134	Sinhal Udyog	India
135	Star Afrique Meter	Maroc
136	Sudanese Chines Meters Factory	Sudan
137	Sudanese Electricity Distribution Co. Ltd	Sudan
138	Syntell (Pty) Ltd	South Africa
139	TBEA Nanjing Intelligent Electric Co., Ltd.	China
140	Telbit	South Africa
141	Tellumat (Pty) Ltd	South Africa
142	The Meter Man	South Africa
143	To-Be (Angola), LDA	Angola
144	Tshwakango Intelligent Metering Services	South Africa
145	Unique Mbane SA Pty Ltd	South Africa
146	Universal Microelectronics Co., Ltd	Taiwan
147	Utiliflex LLC	USA
148	Utility Systems	South Africa
149	Volt in Motion GmbH	Germany
150	Wasion Group Limited	China

151	World Focus 2404 cc	South Africa
152	Wuhan Radarking Electronics Co., Ltd	China
153	Yantai Dongfang Wisdom Electric Co., Ltd	China
154	Zhangzhou Keneng Electrical Equipement Co., Ltd	China
155	Zhejiang Chint Instrument & Meter Co., Ltd	China
156	Zhejiang Hengye Electronics Co., Ltd	China
157	Zhejiang Joy Electronic Technology Co., Ltd	China
158	Zhejiang Reallin Electron Co., Ltd	China
159	Zhejiang Yongtailong Electronic Co., Ltd	China
160	Zhuhai S.E.Z. Calintech Electric Corporation	China
161	ZTE Corporation	China

Membership growth



Membership by country as on 8 May 2014

(Ordered by weight)

	COUNTRY	QTY
1	South Africa	46
2	China	43

3	Indonesia	32
4	India	6
5	Nigeria	4
6	Egypt	2
7	France	2
8	Germany	2
9	New Zealand	2
10	Sudan	2
11	Angola	1
12	Argentina	1
13	Brazil	1
14	Bulgaria	1
15	Colombia	1
16	Hong Kong	1
17	Japan	1
18	Korea	1
19	Morocco	1
20	Mauritius	1
21	Moldova	1
22	Poland	1
23	Russia	1
24	Rwanda	1
25	Serbia	1
26	Singapore	1
27	Taiwan	1
28	Tunisia	1
29	Ukraine	1
30	USA	1
	TOTAL	161

- End of report -

Don Taylor
Chairman
STS Association