



STS ASSOCIATION
Standard Transfer Specification

TID ROLLOVER 4 YEARS TO GO

CRITICAL NOTICE AFFECTING ALL STS METERS

Token ID Rollover Event in 2024



Presenters



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Introduction

- TID Rollover event and remedial action (Don)
- STS Edition 2 in support of TID Rollover (Franco)
- STS Evolution into smart metering devices (Don, Franco)
 - Smart STS prepayment meters – convergence of STS and DLMS/COSEM
 - Applicable standards – STS, DLMS, IDIS, NRS
 - Certification of devices



STS Association

- Established in 1997 as the custodian of the STS standard
 - Company not for gain (no commercial interest)
 - >215 members globally
- Provides services to prepayment industry
 - Product certification (ensures inter-operability)
 - Cryptographic key management (ensures system security)
 - Global service coverage
 - 98 countries, 1200 utilities, 70 million meters



Problem statement

- Unique token identifier (TID) encoded into each 20 digit token
 - Calculated as the number of minutes elapsed from a base date of 1993
 - Stored in the meter to prevent token replay
- TID runs out of range on 24 November 2024
 - **Meter will stop accepting new tokens**
- **REMEDY**
 - Visit each meter and enter 2 special “Reset” tokens
 - “Resets” the meter to a new base date of 2014
 - Extends the useful life of the meter until 2045



Stakeholders

- STS Association members
- Meter manufacturers
- Vending system manufacturers
- Security Module manufacturers
- Utilities (electricity, water and gas)
- Sub-metering entities
- Token vendors



TID Rollover campaign

- STS Association initiative
 - Reach out to all users of STS technology
 - Alert users to the pending 2024 event and remedial actions to take
 - Provide guidelines and assistance
- Established a special task team and central information repository + help line
 - Website : <https://www.tidrollover.com>
 - Email : tid@sts.org.za



Outreach to end users

- Key Management Centre database (SGC/vending key users)
- Industry conferences
- Webinars
- Social media (LinkedIn, Twitter, Facebook)
- Associations etc (SALGA, AMEU, SARPA, PIESA)



Notifications delivered to utilities

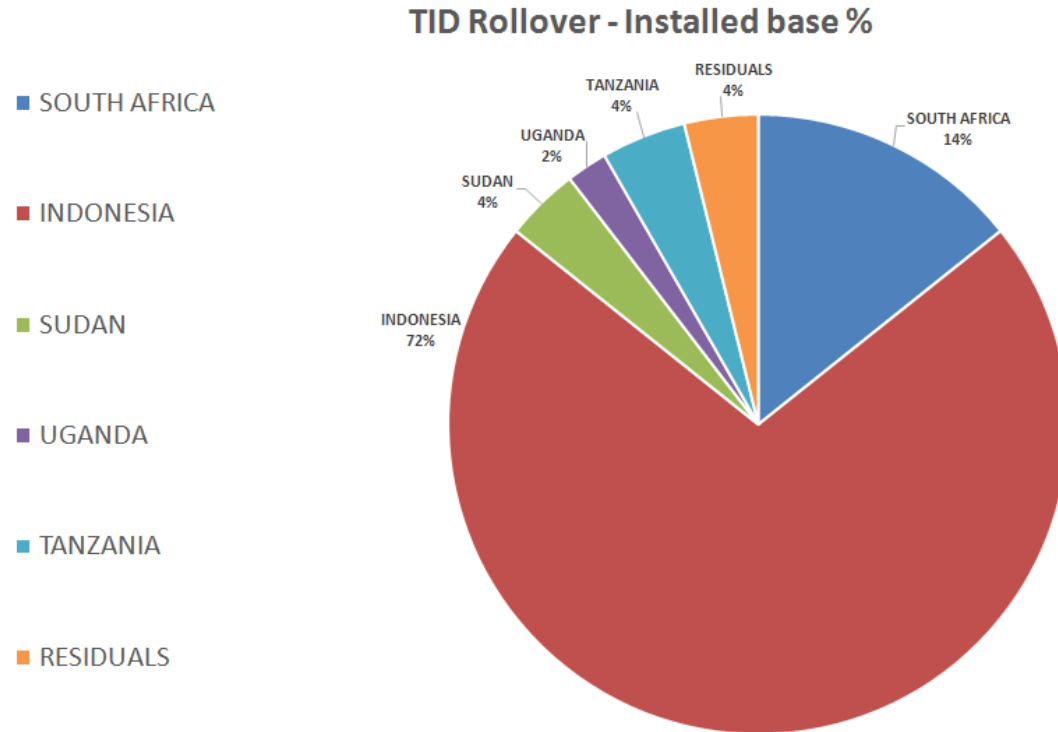
- Traceability is primary problem
- Global lockdown is major challenge
- Delivered
 - 38% local
 - 47% international
- Can't deliver
 - 8% local
 - 42% international

27-Jul-21	Riccardo/Don				Aramex			email
	total	to trace	traced	duplicates	pending	delivered	returned	vendor
Local								
Munic	488	6	0	73	205	204	0	
Sub-meter	290	55	0	4	36	161	34	
Vendor	313	0	0	0	0	0	0	313
ESKOM	78	0	0	0	0	78	0	
totals	1169	61	0	77	241	443	34	313
	100%	5%	0%	7%	21%	38%	3%	27%
International								
English	420	163	0	0	40	187	30	
French	59	19	0	0	9	28	3	
Portuguese	41	14	0	0	4	22	1	
Spanish	194	53	0	0	17	103	21	
Mandarin	56	17	0	0	5	23	11	
Arabic	20	10	0	0	4	5	1	
totals	790	276	0	0	79	368	67	0
	100%	35%	0%	0%	10%	47%	8%	0%



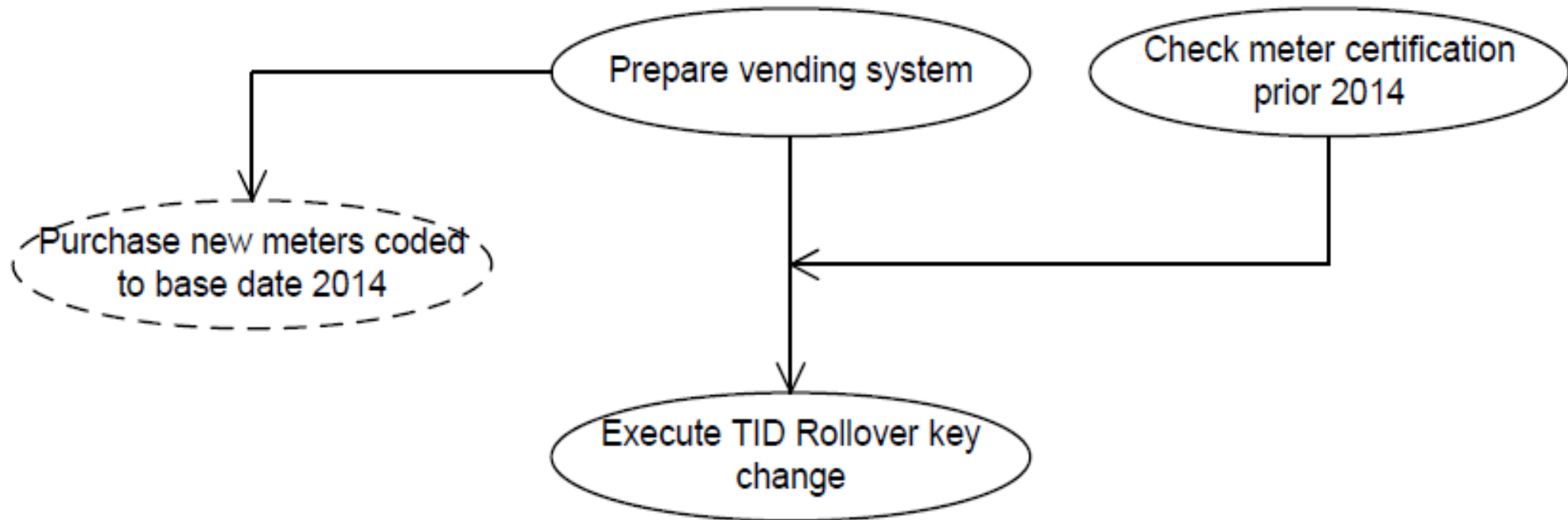
Notifications delivered per meter base

- Global 70 million meters
- 4% not yet reached



TID Rollover recommended process

See STS 1800-3-1 Guidelines for utilities for details



Prepare the vending system

- Request vending system supplier to upgrade the vending software to STS Edition 2
- Request security module supplier to upgrade the security module to STS Edition 2
- Verify that the vending system software and security module have been certified to STS Edition 2
- Request new SGC vending key coded to base date 2014 from key management centre



Check meter certification

- A certain group of meters that were certified prior to 2014 might not “Reset” to base date 2014 correctly
- A list of these meters can be found on the TID rollover website
- If there are meters installed that fall into this category, then a sample from the field can be sent to the STS Association for a free verification test
- If the sample meter fails the test, then all meters of that type need to be replaced in the field prior to performing the “Reset” action



Purchase of new meters

- After the vending system has been certified to STS Edition 2, then new meters may be purchased already coded to base date 2014
 - Driven from the utility's side
 - Specified on the purchase order
- These meters then do not need to be “Reset” again



Execute TID Rollover key change

- Use a vending system that has been certified to STS Edition 2
- Set up a help desk and response team to deal with exceptions when meters are being “Reset” in the field
- Inform the customer base beforehand of what is going to happen
- **OPTION1**: When the customer purchases his next credit token he also receives the two “Reset” tokens for entering into his meter
- **OPTION2**: A dedicated field team enters the two “Reset” tokens into each meter.



Added benefits

- Do a meter audit on installed base at the same time
- Remedy any faulty or tampered meters
- Update the customer/meter database information system
- Recovered non-technical losses can fund the TID Rollover project



Key elements for success

- Formulate a well thought-out project action plan
- Budget for the capital and operational resources
- Do a pilot run to verify the business processes
- Inform your customers beforehand of what to expect
- START the project NOW – time is of the essence (3.3 years left)



STS Industry Committee (ZA)

- Objectives
 - Information sharing platform for TID Rollover role players
 - Monitor progress and feedback of projects
- Activities
 - 3 workshop sessions held for munics, but poorly attended
 - Next workshop planned for 24 August
 - Is the message getting to the right people?
 - Is the message being understood?
 - Budget is major constraint for munics



STS Industry Committee (ZA)

- Stake holders
 - SALGA (chair and admin)
 - AMEU (municipalities)
 - STS Association
 - National Treasury
 - COGTA/MISA
 - Eskom
 - SANEDI



SARPA participation

- Task team is being formed
 - Formulate recommended tender requirements as template for use by utilities
 - Realize added benefits to do revenue protection actions at the same time as the TID Rollover meter reset
 - Funding for the TID Rollover project can be generated from revenue savings resulting from RP actions



Rogue meters

- Criminals are replacing utility prepayment meters with their own, thus diverting the revenue into their own pockets
 - Full extent is unknown at this stage
- Utilities need to analyze their customer sales patterns and do meter inspections where deviations are detected
- STS Association has put in place strict measures at the Key Management Centre to authenticate SGC applicants
 - Fica-like information vetting to authenticate the applicant
 - Conditions of use contract to limit fraudulent use
 - Approval required from the utility to operate in utility's jurisdiction



THANK YOU

For further information
Visit www.tidrollover.com

