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South Africa's Central Securities Depository

ETME
Business Requirements Specification ("BRS")

Version 1.16

Prepared By: Strate

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Document Approval

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This document to be distributed to:

Name	Position/Role	Date of Issue	Version
MMWC			
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1. Executive Summary

This document highlights the high level Money Market Electronic Trade Matching Engine (ETME) Business Requirements only.

An Electronic Trade Matching Engine ("ETME") is fundamental to the Money Market Dematerialisation project and is a requirement clearly defined in the Money Market Blue Print.

The ETME requires the relevant efficient functionality to *"match"* executed trade information reported at a bulked level by counterparties as well as functionality to "*bi-laterally allocate"* underlying trades to the bulk reported by counterparties for settlement on a gross principal to principal basis (Money Market Blue Print requirements.)

The market will start by reporting bulk trade information for Phase 1; i.e. without a Unique Trade Reference Number (" UTRN") included in the trade reporting details. The ETME will then generate the UTRN post Trade matching, to be communicated in the "matched" status intimation sent back to the traders.(Should this method prove inefficient, the Market will caucus to agree a suitable methodology to generate and report a UTRN common to both parties of an executed trade to be included in the trade details reported to the ETME for matching.)

The ETME will be integrated into the Money Market System and can be extricated should the market wish to use another trade matching and allocation engine.

2. Background

For the purposes of this document the term "trade" shall include primary issues, trade of secondary securities and any other action which requires a change in the beneficial ownership of money market securities. Although pledges, portfolio movements and account transfers ("ATF) do not involve the transfer of beneficial ownership these transactions must still be reported to the ETME for processing in the MM System ("MMS").

It is imperative to note that the electronic Money Market system will operate independently on a separate system from the Equities and Bond systems. Thus, all functionalities (*inter alia*, settlement flows and error handling and reporting) on the MM ETME application will be Money Market specific.

The Money Market environment is an informal market with no exchange or any Automatic Trading System ("ATS") and settles on a generally T+0 basis. Consequently there is no reference number common to executed trades to facilitate matching, allocation and settlement of trades on a principal-to-principal basis.

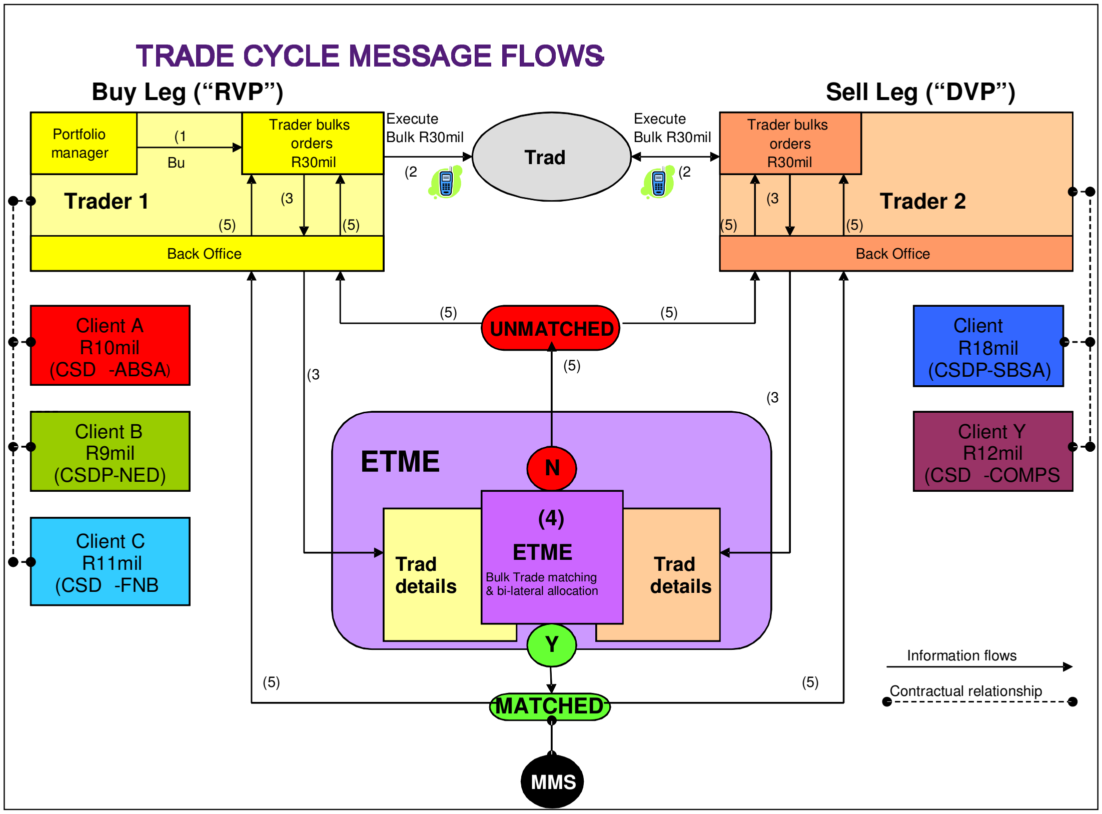
Traders and issuers execute trades on a bulk basis between counterparties and want to eliminate the need to exchange settlement information of allocated trades underlying the bulk amount.

Traders and issuers require a MM ETME with the relevant efficient functionality to *"match"* executed trade information reported at a bulked level by counterparties as well as functionality to "*bi-laterally allocate"* underlying trades to the bulk reported by counterparties for real time settlement on a gross principal to principal basis to satisfy the principles set out in the MM Blueprint.

The MM ETME is to be used as a bulk matching and trade allocation tool that sits between the business partners with a" trader" role reporting trades for settlement and the electronic Money Market system. **The MM ETME will be fully integrated into the MMS** and can be extricated should the market wish to use another trade matching and allocation engine.

The ETME includes extensive validation of trade details reported to the Master File Administration ("MFA") data base in the MMS. The validation process will ensure that allocated trades supporting bulk reported trades for settlement will, as far as possible, be free of static data errors, which will enhance straight through processing required in a generally t+ 0 trading environment but must allow trades to be reported for matching and allocation on a t+n basis.

The Diagram below highlights the information flow between trading parties and the ETME.



(1) Portfolio manager places buy/sell orders with their in-house trader via their own in-house trading systems and procedures. Out of scope to MMS.

(2) **Pre-allocated** client orders are bulked and executed telephonically on a bulk basis with the counter-party trader, the model would not change for trades to be executed on a principal-to-principal basis i.e. a single allocation underlying a single on each side of the trade; client-to-client.

(3) Executed bulk trade and ALL relevant allocation and settlement details are sent electronically using **Trade Reporting messages (from the trader's Own Back Office systems)**, or captured into the **Money Market Front-End "(MMFE")**. The **Trade Reporting message sent by the Corporate and Full CSD Participants in its trader role can include a "Commit up front"** indicator. **The bulk trade reported must be pre-allocated, even if there is only a single allocation, i.e. a principal to principal trade.**

(4) The ETME then carries out validation checks on **ALL** static data in the reported trade information to the MFA e.g. the ISIN, SOR account numbers, valid BP Id nos. ETME will also aggregate the nominal and consideration amounts of the allocated trades reported for underlying clients and compare the total to the bulk nominal and consideration amounts. Matching is done on a **Bulk** level and not on underlying allocated **principal-to-principal basis** at this point. Only once the trade legs are matched, the ETME assigns a UTRN.

(5) (A) Executed trades matched on a Bulk level are reported as **"Matched"** to the traders, either directly to the MMFE, or through the trader's back office using **Trade Status updates, which will include the Internal Trade Reference Number[1] ("ITR") if reported from the Traders back office systems, or if reported from the MMFE**. The UTRN number assigned to the bulk will be included in the "Matched" Trade Status update.
(B) Where a bulk trade reported is not matched at the close of business, the trade is failed at the EOD batch run and reported to the trader in Status Intimation notification as "Failed – Unmatched" . The **ITR reported from the Traders back office systems or captured in the MMFE will be included in the Status Intimation notification.**

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[1] The ITR reported by the trader is not used for bulk matching purposes but is used by the trader to cancel/replace a trade reported before matching by the ETME, or included in the Status Intimation sent to the trader to notify it of invalid trade information rejected by the ETME, or included in the Status Intimation information sent back to the trader by the ETME when trade information has matched or when a trade has "timed-out" and been failed at the Close of Business procedures in MMS. The ITR is used by the trader's back office to match information reported from the ETME to the correct transaction in its back office.

The trade information (excluding a Sell and Buy Back trade) which should be reported by both counterparties for matching and bi-lateral allocation MUST include the following:

Trade Data Validated		Example
ISIN	:	**ZAM000000017**
Trade type	:	**DVP/RVP**
Client/(Transaction) Type[1]	:	**00**
Trade Date	:	**14/02/2007**
Settlement date	:	**14/02/2007**
Nominal Value (bulk)	:	**30 000 000,00**
Consideration (bulk)	:	**33 000 000,00**
Trading Party (Trader CSD BP Id no)	:	**ZA600234**
Trading Counterparty (Trader CSD BP id no)	:	**ZA600242**
Internal reference no[2]	:	ZA600234/0126587
Original ITR Ref number[3]	:	**ITR 012354**
Nominal Values (for each of Client A,B,C))	:	**R10mil,R9mil, R11mil**
Consideration (for each of Client A,B,C)	:	**R11mil,R10mil,R12mil**
SOR account numbers (Clients A,B,C)	:	**10000908,10000916,10000924**

NOTE: *The bulk trade matching criteria noted above does not necessarily represent the order in which the ETME will obtain optimum matching efficiency.*

: **Bulk trade details**

: **Allocations underlying the Bulk trade information** (*Even if the bulk represents a "One to One" Trade, one level of allocation must be reported.)*

2.1 *Work Method followed*

The MM ETME BRS is derived using the ETME High Level Integration Specifications and the ETME trade reporting and matching flows that were developed with the market while preparing the MM BRS v 2.3

[1] Client Type (i.e. Transaction Type) refers to Sell and Buy-backs, Portfolio Moves, Account Transfers
[2] The ITR reported by the trader is not used for bulk matching but is used by the trader to cancel a trade reported before matching by the ETME, or used as a reference to report invalid trade information rejected by the ETME back to the trader, or included in the Status Intimation information sent back to the trader by the ETME when trade information has matched or when a trade has been failed at the Close of Business procedures in MMS because it has not matched. The ITR is used by the trader to match information reported by the ETME to the correct transaction in its back office
[3] The original ITR of the initial trade reported for matching which may have been cancelled by the trader before matching or used to report a "timed-out trade" which has been failed by the ETME in the Close of Business procedures because it had not been matched...

2.2 Objectives

To deliver a market approved MM ETME as part of the Money Market Phase 1 project which, *inter alia* :-

- satisfies the principles contained in the Money Market Blueprint v 2.0 and enhances;
- facilitates more efficient trading of MM securities;
- facilitates efficient settlement in a T+ 0 environment (where possible);
- reduces operational risk; and
- Improves straight through processing.

2.3 Related documents

The following documents have been used in clarifying strategic, business and technology issues in preparing this report and should be read in conjunction with this report:

a) The MM Blueprint 2.0

b) The MM BRS 2.4

c) The MMFE BRS 1.4.6

d) Sell and Buyback Business Requirements Ver 2 6

e) MM Fees BRS Ver 1.2

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2.4 Existing projects and initiatives impacting on this requirement specification

(Refer to the Money Market phase1 programme plan)

The MMS development as well as the ETME development must be completed before integrated testing between the two modules can start. Once the integrated testing has been done successfully, Strate can commence with the systems pre-acceptance testing which will initiate the Strate user acceptance testing. A delay in either the MMS or the ETME modules will have a direct impact on the timeline of the overall project due to this dependency.

2.5 Assumptions

- There is no distinction between Primary Issues and secondary trades for matching and allocation purposes.
- The MM ETME will be fully integrated into the MMS but must be able to be decoupled if required.
- <u>All</u> transactions which lead to a change in beneficial ownership will be reported to the MM ETME for bulk matching and bi-lateral allocation of trades underlying the bulk to facilitate settlement or action in the MMS.
- Trades can only be reported by Business Partners with a “trader role”, either through their integrated back office systems or through the Strate MMFE.
- Pledges and Release Pledges reported by CSD Participants in their role as Custodian must be reported with the relevant Client/Transaction Type which will be validated by the ETME.
- The ITR reported by the trader is not used for bulk matching purposes but is used by the trader to cancel or modify a trade reported <u>before</u> matching by the ETME, or included in the Status Intimation sent to the trader notify it of invalid trade information rejected by the ETME or included in the Status Intimation information sent back to the trader by the ETME when trade information has matched or when a trade has “timed-out” and been failed at the Close

of Business procedures in MMS. The ITR is used by the trader's back office to match information reported from the ETME to the correct transaction in its back office.

- The ETME will be developed to cater for UTRN generation **Post** bulk trade matching for Phase 1
- The market will report trade information without a UTRN and matching will be done using reported bulk trade information. A UTRN will be generated by the ETME *post bulk trade matching*.
- A suitable algorithm will be used in MM ETME to facilitate bi-lateral allocation of trades underlying the reported bulk trade
- Bi-lateral allocations to the bulk will be assigned a unique Bi-lateral Allocation Number ("BAN") by the MM ETME which will link delivery against payment on a principal to principal basis. The BAN together with the UTRN is fundamental to the settlement process.
- No "Roll Overs" will be allowed. All unmatched trade legs will be failed at the EOD batch run
- All reconciliation of security and cash settlement legs (one-to-many and many-to-many) will be handled outside of the system.
- The "Client Type" field refers to "Transaction Type" which will include Portfolio Movements, Account Transfers and Sell and Buy Back transactions..
- Standard ISO15022 messages will be used where possible to report trade information to the MM ETME and to report trade bulk matching statuses to trading parties (even if proprietary messages were already developed for previous MM implementation). Proprietary messages will be developed where no standard messages are available.
- The Sell and Buy back trade reporting details will be detailed in the Sell and Buy Back BRS.
- For Future dated settlements (T+n trades), the trade reporting cut-off time will be checked only on the day of Settlement. For T+0 trades, the cut-off time will be checked on the day the trade is received.
- Unmatched Sell and Buy Backs will fail during the EOD of settlement date of the 1st leg;i.e. purchase leg (will not wait till the 2nd leg; i.e. re-purchase date is reached).
- Un-matched trades will roll over in the same status till the settlement date. If they are still un-matched till the EOD of the settlement date, then they will be failed during EOD process of Settlement Date.

2.6 Scope & Context

The MM ETME BRS covers the functionality required to match bulk trades and allocate trades underlying the bulk on a bilateral basis for settlement. The ETME should be integrated into the MMS and is not a separate integration layer within the MMS. However, the ETME module must be developed in such a manner that it could be replaced by an engine external to Strate in the future. **Therefore the development of the ETME must take into consideration the ability to unplug or "switch off the module" in the future without any impact on the rest of the MMS system**.

The following processes (business areas, systems) are excluded from the scope of this solution:

- The Front End layer of the ETME application (Web, User Interface…). However, the MMFE can communicate with the ETME.
- The Messages layout for all the flows between the market players (will be handled in the Volume 'A' document)
- The ETME Transaction Fees which will be handled under the MM FEE BRS.

3. Product Scope

The minimum functionality required for the Electronic Trade Matching Engine should include:-

- Generate a Unique Trade Reference Number ("UTRN") *post* bulk trade matching,
- Validation of all trade information reported for matching and bi-lateral allocation;
- Identify trades by Trade and Client Type;
- Bulk matching of key trade information reported ;
- Validation of the aggregate consideration and nominal amounts of the trades underlying the bulk to the bulk amounts reported in the trade information
- Bi-lateral allocation of trades underlying the bulk using an algorithm
- Assign a Bi-lateral Allocation Number ("BAN") to principal to principal allocations;
- Fail "unmatched" reported trade legs in the EOD batch run;
- Reports and on-line query
- Audit & Archiving functionality
- Exception Handling

3.1 Functional areas

3.1.1 UTRN Generation *Functionality*

The reporting of the UTRN to the both parties to a trade and subsequent communication will be undertaken using the standard ISO15022 formats.

The ETME must store a list of all UTRN's issued post trade matching. The UTRN must consist of 3 alpha characters followed by 3 digits (i.e. 6 characters in total, refer paragraph 3.2). Once issued, a UTRN cannot be reissued.

3.1.1.1 UTRN Generation of UTRN post Bulk Matching

Once the trade information in both trade legs reported are matched, the ETME will assign a UTRN and then send a "Matched" Status Intimation message back to both trade reporting parties detailing the ITR, BANs (optional) and the UTRN.

The following bulk trade information will be required for bulk matching where the ETME generates the UTRN post matching:-

TRADE DATA MATCHED		Example
BULK INFORMATION		
ISIN		ZAM000000017
Trade Type		DVP/RVP
Client Type		00
Trade Date		04/09/2007
Settlement Date		04/09/2007
Nominal (Bulk)		30 000 000,00
Consideration (Bulk)		33 000 000,00
Trading Party (Trader CSD BP Id no)		ZA600234
Trading Counterparty (Trader CSD BP id no)		ZA600242

NOTE: ***The bulk trade matching criteria noted above does not necessarily represent the order in which the ETME will obtain optimum matching efficiency.***

3.1.2 Validation of trade information reported for bulk matching and bi-lateral allocation

Trade details reported for bulk matching and bi-lateral allocation must be validated to the MFA in the MMS by the ETME to ensure that all reported static data is valid. The following trade information should be validated:-

TRADE DATA VALIDATED		***Example***
BULK INFORMATION		
ISIN		ZAM000000017
Trade Type		DVP
Client Type		00
Trade Date		04/09/2007
Settlement Date		04/09/2007
Trading Party (Trader CSD BP Id no)		ZA600234
Trading Counterparty (Trader CSD BP id no)		ZA600242
UNDERLYING TRADE ALLOCATION INFORMATION		
SOR account numbers (for each allocation A,B,C)		10000908,10000916,10000924
Nominal Value traded (ZAR)		R10mil,R9mil, R11mil
Consideration (ZAR) (if Tolerance > 0, then the Sellers consideration will be used for settlement purpose.)		R11mil,R10mil,R12mil

- The ISIN, the trading party and counterparty BP ID's, SOR accounts of the underlying allocations must be active (Not Frozen) and valid in the MFA. If any of these are inactive/ invalid, or the SOR accounts are frozen, the trade will be rejected by the ETME.
- Trade Date must be equal or less than Current Date;
- Settlement date must be equal or greater than current calendar date;
- Settlement Date must be equal or greater than Trade Date;
- Settlement date must not be equal to or greater than maturity date of the traded ISIN;
- Trade Date must be less than Maturity Date;
- Trade Date must be a Business Date;
- The ETME should validate that there are allocations underlying the bulk trade information. If there are no allocation(s) supporting the bulk, the trade reporting will be rejected and a status intimation message will be sent back to the trading party.
- The bulk nominal and the nominal of the allocations underlying the bulk must be in the minimum tradable denominations of the ISIN traded. If not the trade information will be rejected and a status intimation message will be sent back to the trading party.
- The Traders can report a trade with a Commit indicator set as "AFFI"; i.e., pre-committed. The ETME will have to validate that the trader in question has also a role of CSD Participants, **and** that the SOR accounts listed in the underlying allocations belong to that CSD Participant. The ETME will have to reject the trade reported otherwise.
- A stand alone Trader cannot then report a pre-committed trade.

The Trade types that will be reported through the ETME are:

- DVP/RVP: Deliver/Receive versus Payment

- DFP/RFP: Deliver/Receive Free of Payment
- DPL/RPL: Deliver/Receive Pledge
- DRL/RRL: Deliver/Receive Release Pledge

3.1.3 Identify trades by Trade and Client / (Transaction) Type

The MM ETME will receive approximately 8 message types to allow for the settlement and reporting of:

- *Trade Types:*
  - *RFP and DFP*
  - *RVP and DVP*
  - DPL and RPL
  - DRL and RRL

- *Client Type(Transaction type):*
  - Sell and Buy Back (60)
  - Sell & Buy Back Substitution (61)
  - Portfolio movements (transfer of all Instruments holdings of a client SOR account(s) from one CSD Participant to another CSD Participant) (31)
  - Account transfers:(30)
    - Transfer the ISIN balance(s) of an SOR account from one SOR account to another in the same or different CSD Participant
    - Transfer of determined Holdings of ISIN from one CSD Participant to another.

3.1.4 SARB Primary Issue trade reporting for collateral purposes

The SARB Primary Issue trade reporting will be reported, matched and settled in the same way as all other trades except that the SARB (SA Reserve Bank) will report both trade legs for the buyer and seller for trade matching and settlement.

SARB will send the Sell and the buy Leg for trade matching. The SOR Account used for the sell leg will be the SARB Primary Issue account (RESB Collateral account), and the buy leg will use the Clients Collateral account held at SARB. Once matched, the trade legs will then be sent to the MMS for settlement.

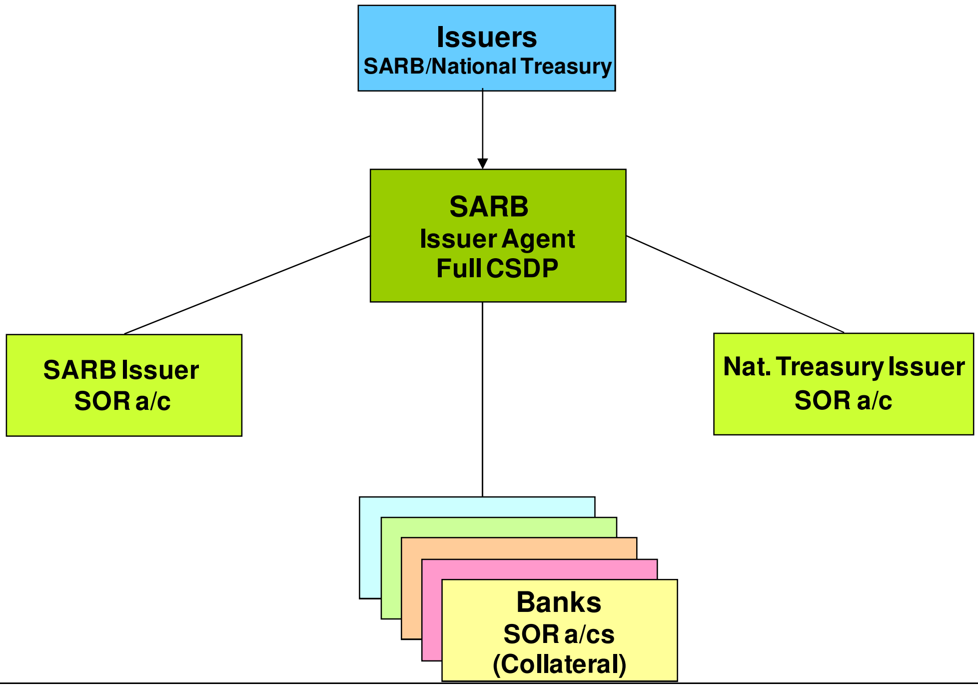
The Setup of the SARB SOR accounts diagram details the MFA setup required:

SARB will also have to be setup as a Trader to be able to report trades to the ETME.

The Setup of the SARB CSDP will have to be as follow in the MMS MFA:

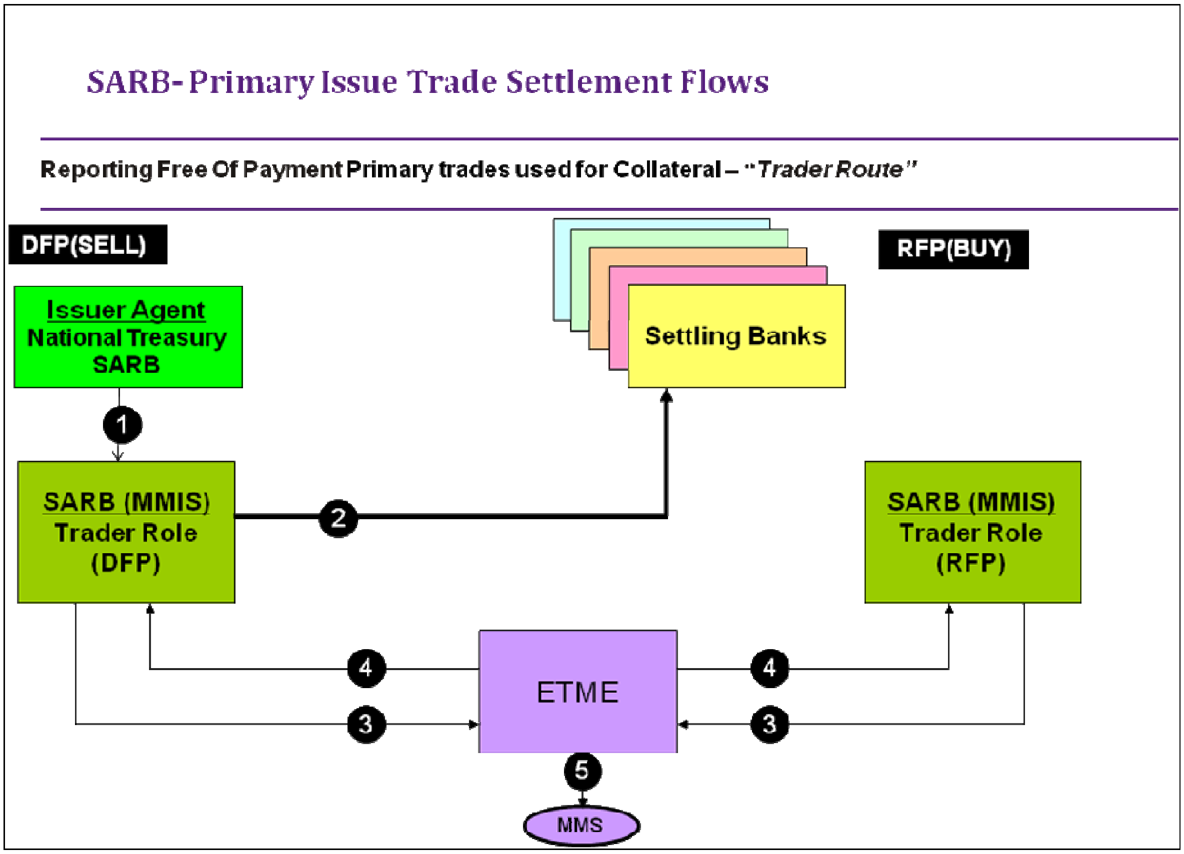
SARB Full CSDP

SOR Structure for Issuer and Collateral Clients



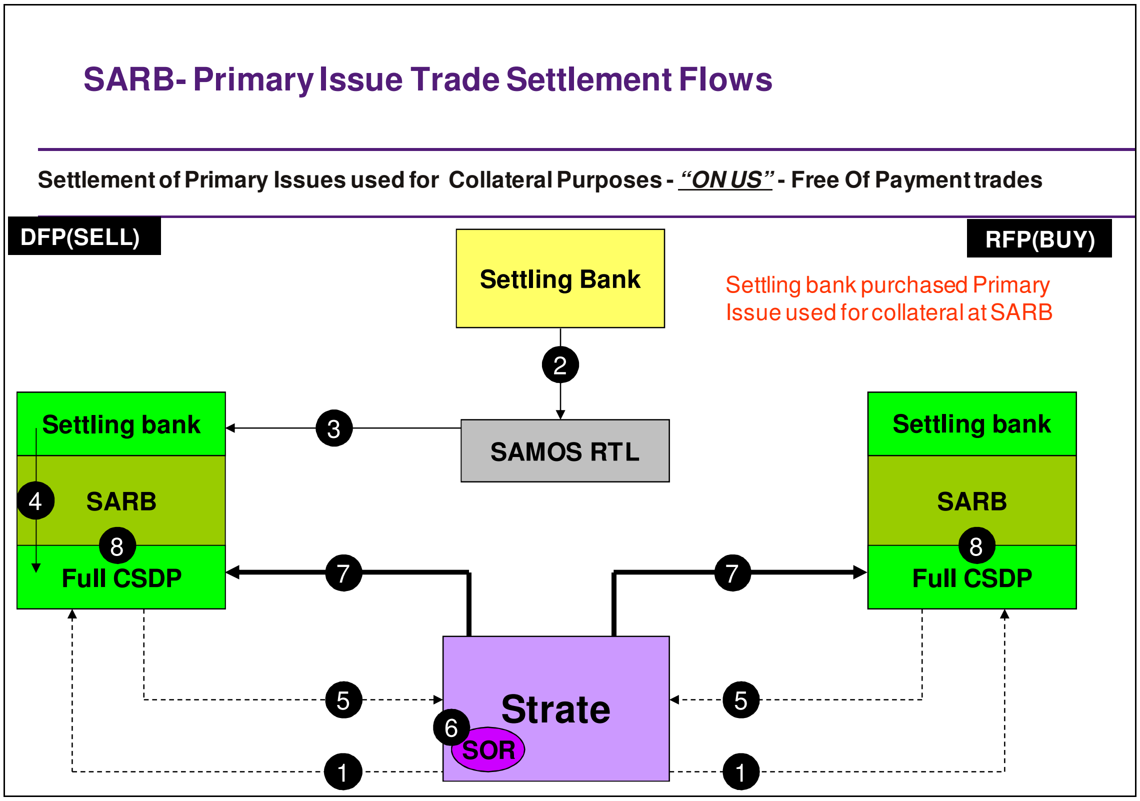
SARB will be assuming the role of Trader/CSDP, as well as Issuer Agent. National Treasury will be the Issuer. SARB CSD Participant will hold SOR accounts for own collateral purposes on behalf of all its clients, as well as SARB own investment account for own account trades.

Reporting Free of Payment Primary trades used for Collateral – "Trader Route"



1. **Trade notification** sent from SARB/National Treasury to the SARB CSD Participant which will report the trade, in their role as "*Trader*", on behalf of National-Trader.
2. SARB CSD Participant notifies Settling Banks which tendered for securities of the settlement amount due on trades for collateral purposes via SARB proprietary system (MMIS.)
3. SARB CSD Participant will report Deliver Free of Payment trade reporting Leg AND the Receive Free of Payment to the ETME for matching.
4. Once matched, the ETME will send "Matched" Status Intimations to the SARB CSD Participant for both legs reported..
5. The matched trade legs are passed on to MMS for settlement

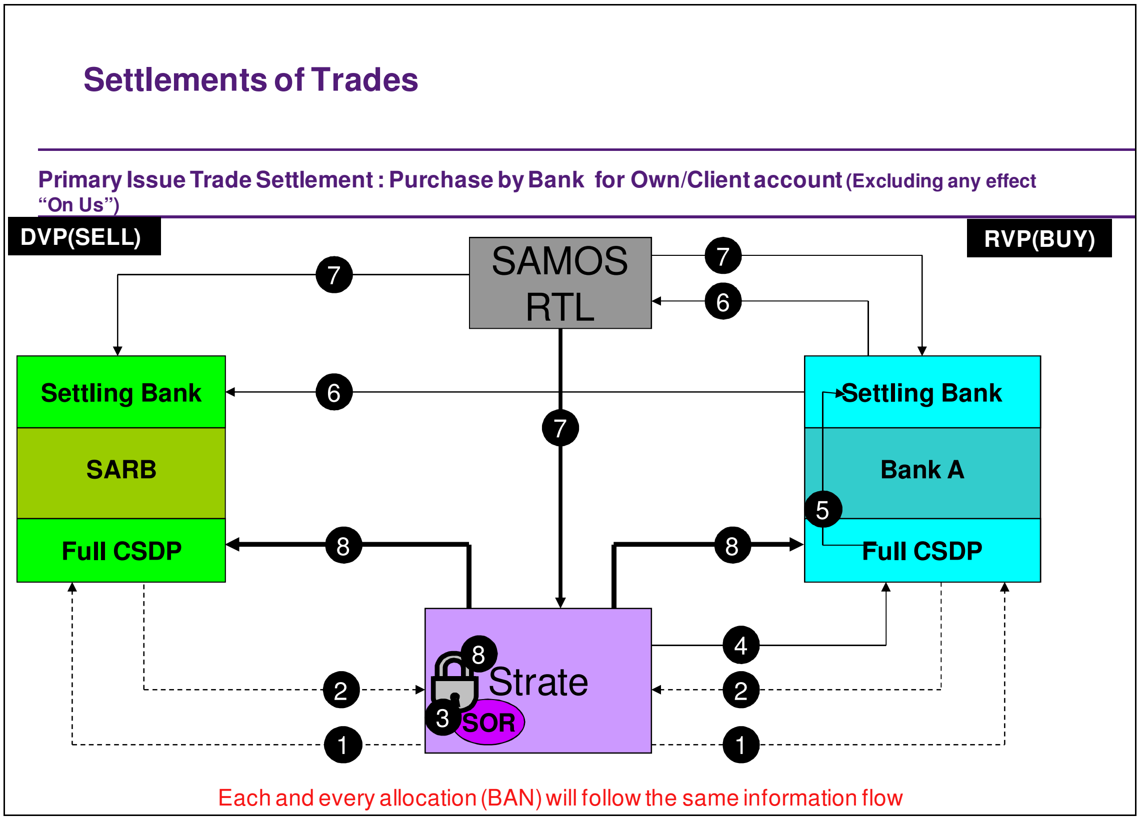
<u>Settlement of Primary Issues used for Collateral Purposes in MMS - *"ON US"* - Free Of Payment trades</u>



1. Once the trade legs are matched**, Settlement Allegement messages** by MMS to the SARB CSD Participant for both DFP/RFP.
2. Settling banks, which purchased SARB/National Treasury Primary Issue to be placed on collateral with SARB CSD Participant, fund SAMOS RTL.
3. SAMOS confirms funds received in favour of SARB Settling Bank from Settling Banks.
4. SARB Settling Bank confirms receipt of funds to SARB CSD Participant.
5. SARB CSD Participant sends Commits to Strate for both DFP and RFP.
6. Strate moves the securities to the new beneficial owner's "Free" balance
7. MMS sends **Status Intimation messages** to SARB CSD Participant to advise them of the securities movement.
8. On receipt of the **Status Intimation,** SARB CSD Participant moves securities between Issuer's and new beneficial Owner's SOR accounts with it.

Note: although this process happen only in MMS, it iis shown here for additional clarity.

<u>Primary Issue Trade Settlement: Purchase by Bank for Own/Client account in MMS (Excluding any effect "On Us")</u>



1. **Settlement Allegement messages** sent from Strate to CSD Participants.
2. CSDP sends a **Commit Message** to Strate committing to deliver securities/settle the cash leg of a trade for their client
3. On receipt of the Commits from the CSD Participants for <u>**both**</u> securities and cash, Strate "locks"/reserves the securities.
4. Once the securities have been locked Strate sends a **"Request for Payment" message** to the paying CSDP.
5. The CSD Participant will send a **Payment message** to their Settling Bank (their internal Treasury) instructing payment.
6. The Settling Bank sends a Settlement instruction to SAMOS RTL and simultaneously a Payment Instruction to the receiving Settling Bank to credit the beneficiary CSD Participant.
7. SAMOS notifies STRATE of the Settlement and simultaneously notifies both the Settling Bank paying and Settling Bank receiving of the settlement.
8. On receipt of the Settlement confirmation from SAMOS, instantaneously Strate moves the securities locked in the SOR to the new beneficial owner's "Free" balance and sends **Status Intimation messages** to the trading parties CSD Participants to advise them of the securities movement.

Note: although this process happen only in MMS, it iis shown here for additional clarity.

3.1.5 Bulk matching of key trade information reported

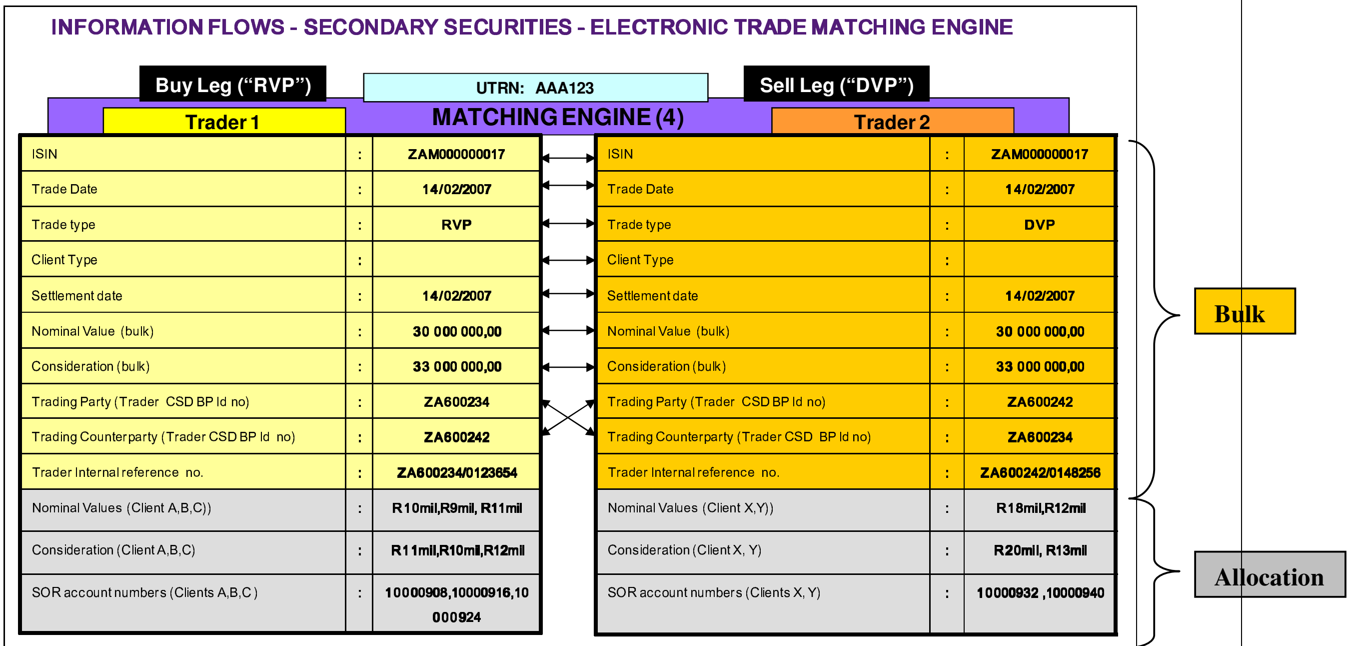
The Executed Bulk trade legs must contain the following mandatory information/data for bulk matching, in an ISO15022 format, to allow the ETME engine to match the buyer and seller trade legs at a Bulk level:

BULK DATA REQUIRED FOR MATCHING		*Example*
ISIN	:	ZAM000000017
Trade type	:	DVP/RVP
Client Type	:	00
Trade Date	:	14/02/2007
Settlement date	:	14/02/2007
Nominal Value (bulk)	:	30 000 000,00
Consideration (bulk) (if Tolerance > 0, then the Sellers consideration will be used for settlement purpose).	:	33 000 000,00
Internal Trade Ref Number	:	ZA600234/0126587
Trading Party (Trader CSD BP Id no)	:	ZA600234
Trading Counterparty (Trader CSD BP id no)	:	ZA600242

Note: *The ITR reported by the trader is not used for bulk matching purposes but is used by the trader to cancel or modify a trade reported before matching by the ETME, or included in the Status Intimation sent to the trader notify it of invalid trade information rejected by the ETME, or included in the Status Intimation information sent back to the trader by the ETME when trade information has matched or when a trade has "timed-out" and been failed at the Close of Business procedures in SAFIRES/Strate. The ITR is used by the trader's back office to match information reported from the ETME to the correct transaction in its system.*

A Tolerance must be allowed for matching the Bulk Consideration amount only. This must be parameter setup driven. The Buying counterparty's consideration will be changed to the Selling counterparty's consideration if the difference is within the tolerance. If the considerations are outside the tolerance limit, the trade will not match.

Bulk matching is undertaken on ONLY the common information to the trade and not the ITR or allocations underlying the bulk at this stage. This can be illustrated by the following diagram:



The UTRN and the ITR must be included in the “Matched” Status Intimation message generated by the ETME and communicated back to both the reporting parties. The BAN will be reported back to the traders on a standing instruction basis in a separate message.

3.1.6 Validation of the aggregate consideration and nominal amounts of the trades underlying the bulk to the bulk amounts reported for matching

The aggregate of nominal values and consideration of the underlying allocations must be equal to the bulk nominal vale and consideration reported. Any difference will lead to the trade information being rejected and a status intimation message will be sent back to the trading party.

3.1.7 Bi-lateral allocation of trades underlying the bulk using an algorithm

If there are no allocation(s) supporting the bulk, the trade reporting will be rejected and a status intimation message will be sent back to the trading party.

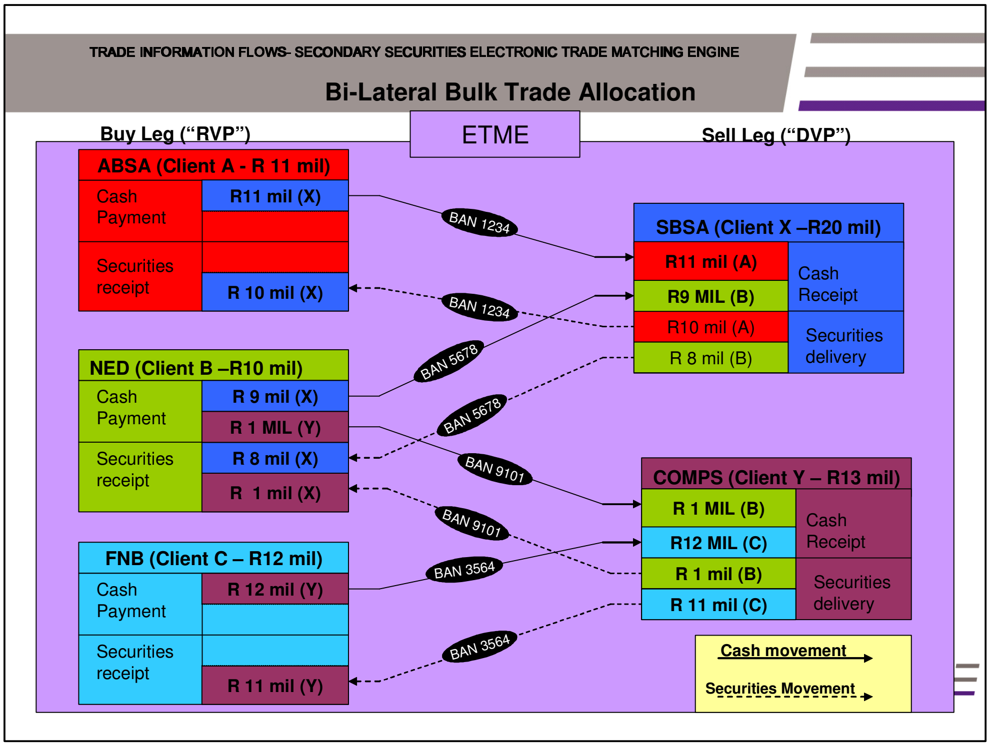
Once the bulk trade information has been “*matched”* and the UTRN assigned by the ETME, the ETME will then proceed with the bilateral allocation of underlying trades using an algorithm. Once the bi-lateral allocation is complete, only then, an Allegement message will be sent to the **Full CSD Participants** including the UTRN, the BAN the CSD Ref and the ITR.

The following information for ***EACH*** and every trade underlying the bulk trade reported is used in the bi-lateral allocation process:-

DATA REQUIRED		***Example***
Nominal Value traded (ZAR)	:	R10mil,R9mil, R11mil
Consideration (ZAR)	:	R11mil,R10mil,R12mil

SOR account numbers (for each allocation A,B,C)	:	10000908,10000916,10000924

The following diagram illustrates the philosophy of the bi-lateral allocation process:



Each BAN together with the UTRN pertaining to the bulk must be included in the "Matched" the Status Intimation messages as well as all messages related to the settlement process

3.1.8 Assign a Bi-lateral Allocation Number ("BAN") to bi-lateral underlying allocations

Once "allocated" the ETME **must** assign a Bilateral Allocation Number ("BAN") to both legs of the bi-lateral allocation in order to identify delivery of securities and settlement of cash on a principal to principal basis. The same process applies to all transactions types noted in 3.1.3 above.

Even if the bulk level is on a one to one level, the ETME must still carry out the bilateral allocation and assign 1 BAN to the single underlying allocation.

3.1.9 Modifications and Cancellation of trades reported

The ETME must be able to receive Modifications, sent in a Replacement message, and Cancellation instructions from trade reporting parties.

Before trade matching:

- A **Replacement message** can be sent to the ETME to modify information in a trade reported. The trader should include the ITR number used to report the original trade information together with modified trade information. The ETME should send a confirmation of the modification to the party reporting the trade.

- A **cancellation** request, detailing the original ITR, can be reported by the trading party to the ETME. A cancellation confirmation will be sent by the ETME to the reporting party.

<u>*After Matching:*</u>

- Once trades have been **matched,** they **cannot be replaced or cancelled *(except for the second leg of a buy back transaction)***

- Refer to Exception Handling Procedures document for more information included in MMS BRS v2.4

3.1.10 Trade Reporting Window and Business Calendar

Trades must be reported within the timeframes detailed in the Operational Windows. The Windows should be parameter driven to allow the windows to be moved until the market finds an equilibrium (refer Operational Windows Document.).
Trades reported for T+n Settlement must still be reported on or before trade reporting cut off time on trade reporting date.

The normal Business Calendar for trade reporting is Monday to Friday.

A Parameter setup in the ETME **<u>must</u>** allow Strate to change the trade reporting Window during a business day or to change the Business Calendar to allow for the following exceptions:

Exceptions:

Any exceptions to the Trade Reporting window and the Business Calendar will only be considered where the circumstances are considered *exceptional.* For trade reporting on Saturdays, the trading parties must provideStrate and the market at least one day's notice for exceptionally opening the trade reporting windows. If prior notice has not been received by Strate, any trade reported to the ETME will be rejected and a notification message sent to the related party

- **Trade reporting on a business day outside the Trade Reporting Cut Off Window:**

  The ETME must also be able to cater for Trade Reporting after cut off time on a business day for exceptional circumstances. Approved late trades reported after the trade reporting cut off time **must** have a **same day settlement**. The normal settlement procedures will follow.

- **Trade reporting outside a Business Day :**

  The Trade Reporting Window must be able to be opened for trade reporting on a Saturday

3.1.11 Communication

The ETME MUST send the following information:-

- Acknowledgement of trade information reported received by the ETME. The ITR number must be included in the acknowledgement Intimation message
- A UTRN Post-Bulk Trade Matching in a Status Intimation message with the ITR. The BAN will be reported back to the traders on a standing instruction basis in a separate message
- a *"Rejected Trade"* where invalid MFA trade information details are reported, and for under/over-allocations of the underlying allocations nominals and considerations back to the bulk
- If the trades are not matched within 60 minutes, a Status Intimation message will be sent to the trading party that booked the trade. This message will be optional and depending on the standing instruction from the traders.
- The status of reported trades in a Status Intimation message to the parties reporting trade information:-
  - Matched – must include the UTRN and ITR
  - Unmatched - must include the ITR
- Allocated trades, BANs, for settlement in the MMS (SAFIRES).
- **Confirmation of Cancelled** trades requests and **modification** to trade information reported.
- Bulk consideration and nominal to MMS to update the Central Securities Register for Tap Top Up trades and for reconciliation to all settled Bilateral-allocations (internal monitoring process for Strate.)

3.1.12 Reports and on-line query

3.1.12.1 Traders Reports (ETME)

❖ ***UTRN/BAN/ITR/Trade dates assignment***

- This report is sent as per Standing Instructions as part of the End of Day processes. That is, it **cannot** be requested on an ad hoc basis.
- It lists the UTRN/BAN/ITR/Trade dates assignment
- It contains **only the Trades that have been reported by the Trader** receiving the report.

The following data will be sent as part of this report:

Field	Description
Trader BP Id	**Trader BP Id**
Trades Details (can repeat up to 6 times)	
ISIN	**ISIN assigned to the MM Security**
ISIN Short Description	**ISIN Short Description**
ISIN Long Description	**ISIN Long Description**
Trade Date	**Trade date**
ITR	**Internal Trade reference number**
UTRN	**Unique Trade Reference Number**
BAN	**Bilateral Allocation Number**
Settlement Date	**Settlement Date**
Nominal	**The Nominal Amount**
Consideration	**The Consideration Amount**
Settlement Type	**Settlement Type**
Counterparty Trader	**Counterparty Trader**
Client Type	**Client Type**

❖ Own and Counterparty Unmatched Trades Report

- This report is sent as per Standing Instructions as part of the End of Day processes. That is, it **cannot** be requested on an ad hoc basis.
- It lists the Trades/Pledges booked by the trader/CSD Participant and the trades booked against him.

It contains **only the ISIN's that have been reported or booked against the Trader/CSD Participant** receiving the report. The following data will be sent as part of this report:

Field	Description
Trader/ CSD Participant BP Id	**Trader/ CSD Participant BP Id**
Trades Details (can repeat up to 6 times)	
ISIN	**ISIN assigned to the MM Security**
ISIN Short Description	**ISIN Short Description**
ISIN Long Description	**ISIN Long Description**
Trade date	**Trade date**
Counterparty BP ID	**Counterparty BP ID**
ITR	**Internal Trade reference number**
Trade Date	**Trade Date**
Settlement Date	**Settlement Date**
Nominal	**The Nominal Amount**
Consideration	**The Consideration Amount**
Settlement Type	**Settlement Type**
Client Type	**Client Type**

❖ Trade Status Report (Cancelled, Matched, Failed)

- This report is sent as per Standing Instructions as part of the End of Day processes. That is, it **cannot** be requested on an ad hoc basis.
- It lists the Status of Trades/Pledges booked by the trader/CSD Participant.
- It contains **only the ISIN's that have been reported by the Trader**/CSD Participant receiving the report.

The following data will be sent as part of this report:

Field	Description
Trader/CSD Participant **BP Id**	**Trader** /CSD Participant **BP Id**
Trades Details (can repeat up to 6 times)	
ISIN	**ISIN assigned to the MM Security**
ISIN Short Description	**ISIN Short Description**
ISIN Long Description	**ISIN Long Description**
Trade date	**Trade date**
ITR	**Internal Trade reference number**
UTRN (If available)	**Unique Trade Reference Number**
BAN (If available)	**Bilateral Allocation Number**
Trade Status	**Trade Status**

Field	Description
Settlement Date	**Settlement Date**
Nominal	**The Nominal Amount**
Consideration	**The Consideration Amount**
Counterparty Trader	**Counterparty Trader**
Settlement Type	**Settlement Type**
Client Type	**Client Type**

3.1.12.2 Traders Queries (ETME)

❖ **UTRN/BAN/ITR/Trade dates assignment**

The trader can request the query with the following options.

- Specific ISIN
- Or specific trade date range (From – To range)
- Or with a specific ITR.
- Or with a specific UTRN
- Or with a specific BAN
- Or with a Given Settlement date
- Or for a given Counter party
- Or with Client Type
- Or with a combination of the above mentioned options

The query can be requested for current date also, the query response will contain only those trade details which are reported by the trader who is the requestor of the query.

Query Request:

The following data will be sent as part of this query:

Field	Description
Trader BP Id	**Trader Agent BP Id**
ISIN	**The ISIN**
ITR	**Internal Trade Reference number**
Trade date	**Trade date range (From-To)**
UTRN	**Unique trade reference number**
BAN	**Bilateral Allocation Number**
Settlement Date	**Settlement Date**
Counterparty Trader	**Counterparty Trader**
Client Type	**Client Type**

Viewing the Query:

The following data will be sent as part of this query:

Field	Description
Trader BP Id	**Trader BP Id**
Trades Details (can repeat up to 6 times)	
ISIN	**ISIN assigned to the MM Security**
Trade Date	**Trade Date**
ITR	**Internal Trade reference number**
UTRN	**Unique Trade Reference Number**
BAN	**Bilateral Allocation Number**
Settlement Date	**Settlement Date**
Nominal	**Nominal**
Consideration	**Consideration**

Field	Description
Settlement Type	**Settlement Type**
Counterparty Trader	**Counterparty Trader**
Client Type	**Client Type**

❖ Own and Counterparty Unmatched Trades Query

The trader can request the query with the following options.

- Specific ISIN
- Or specific trade date range (From – To range)
- Or with a specific ITRN
- Or with a Given Settlement date
- Or with Client Type
- Or with a combination of the above mentioned options

The query can be requested for current date also, the query response will contain only those trade details , which are reported or booked against the trader , who is the requestor of the query.

-

Query Request:
The following data will be sent as part of this query:

Field	Description
Trader's BP Id	**Trader's BP Id**
ISIN	**The ISIN**
Trade Date From	**The Trade Date Range**
Trade Date To	**The Trade Date Range**
Settlement Date	**Settlement Date**
Counterparty Trader	**Counterparty Trader**
Client Type	**Client Type**

Viewing the Query:

The following data will be sent as part of this query:Field	Description
Trader BP Id	**Trader BP Id**
Trades Details (can repeat up to 6 times)	
ISIN	**ISIN assigned to the MM Security**
Trade Date	**Trade Date**
Counterparty BP ID	**Counterparty BP ID**
ITR	**Internal Trade reference number**
Settlement Date	**Settlement Date**
Nominal	**Nominal**
Consideration	**Consideration**
Settlement Type	**Settlement Type**
Counterparty Trader	**Counterparty Trader**
Trade Status	**Trade Status**
Client Type	**Client Type**

❖ Trade Status Query (Unmatched, Cancelled, Matched, Failed)

The trader can request the query with the following options.

- Specific ISIN
- Or specific trade date range (From – To range)
- Or with a specific ITR.
- Or with a specific UTRN
- Or with a specific BAN
- Or with a Given Settlement date
- Or for a given Counter party
- Or for a given trade status.
- Or with Client Type
- Or with a combination of the above mentioned options

The query can be requested for current date also, the query response will contain only those trade details , which are reported by the trader who is the requestor of the query.

Query Request:

The following data will be sent as part of this query:

Field	Description
Trader BP Id	**Trader Agent BP Id**
ISIN	**The ISIN**
Trade Date From	**The Trade Date Range**
Trade Date To	**The Trade Date Range**
ITR	**Internal Trade Reference Number**
UTRN (if Matched)	**Unique Trade Reference Number**
BAN (if matched)	**Bilateral Allocation Number**
Settlement Date	**Settlement Date**
Counterparty Trader	**Counterparty Trader**
Trade Status	**Trade Status**
Client Type	**Client Type**

Viewing the Query:

The following data will be sent as part of this query:Field	Description
Trader BP Id	**Trader BP Id**
Trades Details (can repeat up to 6 times)	
ISIN	**ISIN assigned to the MM Security**
ISIN Short Description	**ISIN Short Description**
ISIN Long Description	**ISIN Long Description**
Trade date	**Trade date**
ITR	**Internal Trade reference number**
UTRN (if matched)	**Unique Trade Reference Number**
BAN (if matched)	**Bilateral Allocation Number**
Settlement Date	**Settlement Date**
Nominal	**Nominal**
Consideration	**Consideration**
Settlement Type	**Settlement Type**
Counterparty Trader	**Counterparty Trader**
Trade Status	**Trade Status**

The following data will be sent as part of this query:Field	Description
Client Type	**Client Type**

3.1.13 Audit and Archiving

The ETME must ensure an audit trail of all processed trade information and failures prior to matching. This would include all trade details on the following:

- UTRN assignments
- Trade information which "timed-out;" (20 min after trade reporting)
- Unmatched trades
- Bulk Matched trades
- BAN allocations
- Cancellations instructions received

3.1.14 Exception Handling

Trade Reporting:

Any trade that has been reported but not yet matched within 60 minutes will lead to a Status Intimation message being sent by the ETME to the trader's trade reporting party to notify them that the trade is not matched. This message will be optional and depending on the standing instruction from the traders.

The trade reporting party must follow up with the trader, who in turn must contact the counterparty. If the counterparty's reporting party has already reported the trade, then the trade must be corrected by the party, who has reported the trade incorrectly in the first place. If the counterparty's reporting party has not reported the trade, then the counterparty must contact its reporting party and ensure that the trade is reported timeously to the ETME.

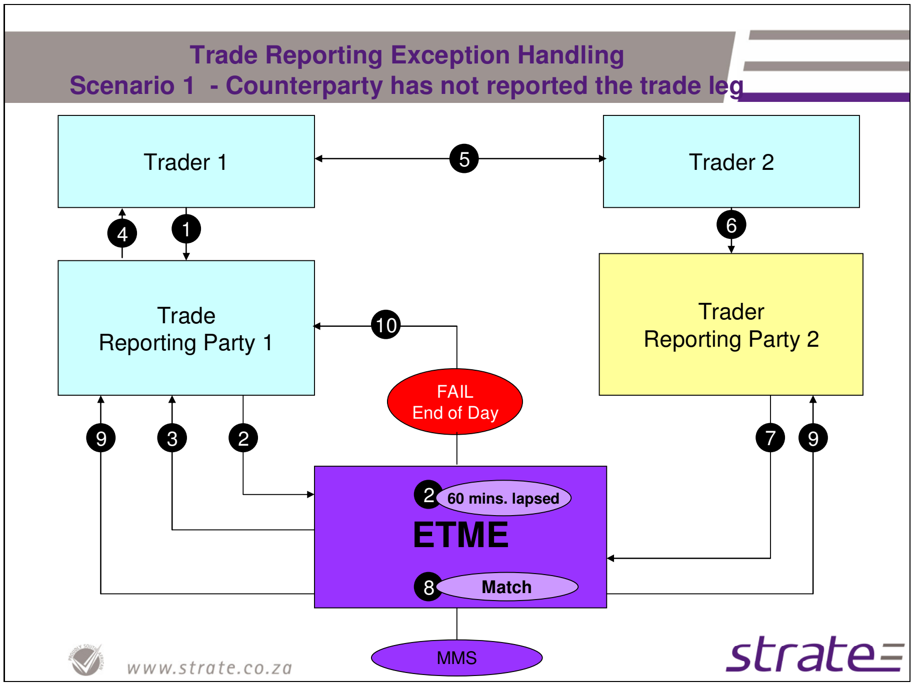
Trade Matching:

Should a reported trade remain in the ETME without either being cancelled or matched, it will be timed-out and failed in the EOD batch run.

MFA Validation:

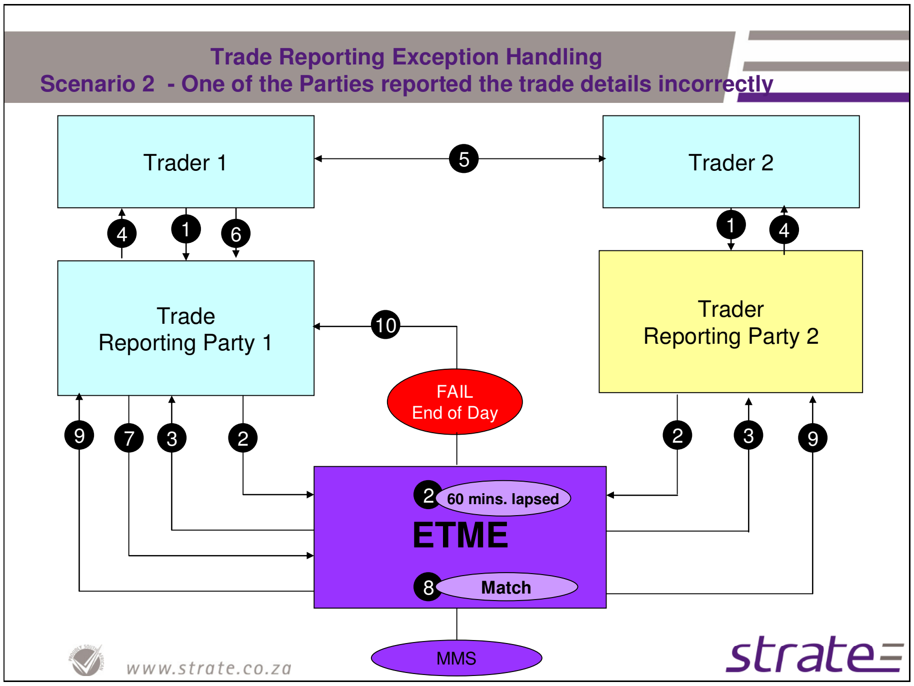
If the Bulk matching data validation fails, the trade leg is then rejected by the ***ETME*** and a Status Intimation message, detailing which field(s) has been rejected, is then sent to the reporting party. The status intimation message will include the ITR. A new tradereporting message will have to be sent by the trader after fixing the errors.

The trade reporting Exception Handling diagram below details the exception procedure that will be followed by the system:



1. Trader 1 notifies the Trade Reporting Party with the trade details.
2. Trader Reporting Party 1 submits executed trade information using **Trade Reporting message MT598-170**.
3. If after the prescribed 60 minutes the ETME is unable to find a matching trade leg it will send a **Status Intimation (MT548-108)** to Reporting Party with a status code ***"unmatched counterparty un-booked after the prescribed time limit."***
4. The Trade Reporting Party 1 notifies Trader 1 about the unmatched instruction..
5. The Trader 1 and Trader 2 consult with each other. In this case, the Counterparty may have neglected to submit its trade details to its reporting party.
6. The Trader 2 notifies the Trade Reporting Party with the trade details.
7. Trader Reporting Party 2 submits executed trade information using **Trade Reporting message MT598-170.**
8. The normal matching process will be carried out.
9. Once a match has been made and a UTRN assigned, the ETME will send the matched allocated trades to the MMS for settlement and **Status Intimation MT548 *"Matched"*** to the trading parties (this message is optional.)
10. Should the Reporting Party's trade not match by the end of the business day, the trade reported will be failed and a **Status Intimation MT548 *"Failed"*** will be sent to the Reporting Party.

Scenario 2 – Both the parties reported their trade legs but one of them reported incorrectly



1. Trader 1 and Trader 2 notify the respective Trade Reporting Parties with the trade details.
2. Trader Reporting Party 1 and Trade Reporting Party 2 submits executed trade information using **Trade Reporting message MT598-170**.
3. If after the prescribed 60 minutes the ETME is unable to find a matching trade leg it will send a **Status Intimation (MT548-108)** to Reporting Party with a status code ***"unmatched counterparty un-booked after the prescribed time limit."***
4. The Trade Reporting Party 1 and Trade Reporting Party 2 notify Trader1 and Trader 2 respectively about the unmatched instruction..
5. The Trader 1 and Trader 2 consult with each other. In this case, one of the Traders submit the trade details incorrectly to its Reporting Party.
6. The Trader 1 notifies the Trade Reporting Party with the correct trade details.
7. Trader Reporting Party 1 submits replacement message using **Trade Reporting message MT598-170.**
8. The normal matching process will be carried out.
9. Once a match has been made and a UTRN assigned, the ETME will send the matched allocated trades to the MMS for settlement and **Status Intimation MT548 *"Matched"*** to the trading parties (this message is optional.)
10. Should the Reporting Party's trade not match by the end of the business day, the trade reported will be failed and a **Status Intimation MT548 *"Failed"*** will be sent to the Reporting Party.

3.2 *Critical information required from the ETME for settlement*

The format and maximum field sizes agreed with the SARB and the market for the UTRN and "Bi-Lateral trade Allocation number," generated by the ETME, must be included in all settlement and status intimation messages and will also be included into field 21 of the Swift MT298-910 message which will be sent by SAMOS to Strate to report Settlement is detailed below:

Character fields															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	A	A	N	N	N	**M**	A	A	A	N	N	N	N	N	N
Unique Trade reference no.						Security type	***Bi-lateral unique SAFIRES order number***								

Key		
A	=	Alpha
M	=	MM security identifier
N	=	Numerical

As this field has a limitation in terms of character field space of 16 a decision was made to weight the available space between the likelihood of there being far fewer "Bulk" trades reported compared to the number of underlying bi-lateral allocations necessary to the Bulk.

Field 7 is reserved to identify the broad security being traded. This identification character will prevent SAMOS from erroneously sending settlement messages to Strate relating to "paper" trades which will still be in the system from the date all new issues of MM securities become electronic. Although this reduced the available character field size to 15, the use of alpha-numeric sequences caters for an adequate quantum of numbers to be generated before the sequence has to be restarted.