



## Integrated Trading & Clearing (ITaC)

CSDP Working Group – Securities Collateral  
16 October 2017

# Agenda

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- JSE collateral service and processes
- Proposed collateral process timings
  - Normal (typical) day
  - Exception scenarios
- Corporate actions
- Client enablement process

# JSE collateral service and processes

## Background



- JSE Clear, the clearing house for listed derivatives in the South African market, calls for **initial margin (collateral) against all open derivative exposures** held by its clients
- Initial Margin (IM) requirements are calculated and collected/released as part of the daily risk management processes
- **These margins are currently payable in ZAR-cash only**
- Post the 2008 financial crisis and the tightening of risk and regulatory frameworks and policies such as Basel III, CPMI IOSCO and EMIR, the **demand for efficient asset utilisation has increased**
- As a result, there has been a **steady growth in demand from the market for the acceptance of alternative forms of collateral**
- The ability to post securities and foreign currency collateral is **expected to assist clients in freeing up ZAR cash**

# JSE collateral service and processes

## Background (cont.)



- The new securities collateral service offering is being implemented as part of the JSE Integrated Trading and Clearing (ITaC) project with a go-live date of 19 Feb 2018 (and a 26 contingency go-live date of 26 March 2018)
- The introduction of the service will be phased:
  - **Phase 1a** – Pledging of select **SA government bonds** against initial margin requirements in the **Equity Derivative (EDM) and Currency Derivative (FXD)** markets in Q1 2018
  - **Phase 1b** – Pledging of select **Top 40 equities** against initial margin requirements in the **Equity Derivative (EDM) and Currency Derivative (FXD)** markets to follow a few months after Phase 1a
  - **Phase 2** – Pledging of select **SA government bonds and Top 40 equities** against initial margins requirements in the **Interest rate Derivative (IRD) and Commodity Derivative (CDM) markets**
  - **Phase 3** – Pledging of **foreign currency cash collateral i.e. USD, GBP and EUR**, will be launched once final regulatory approvals are obtained and testing with the market is completed

*Note: Collateral for Cash Equity margins is being dealt with in the Equity CCP initiative*

# JSE collateral service and processes

## Background (cont.)



Indicative market benefits based on estimated market take-up of securities collateral:

### Initial margin benefits

- The acceptance of securities collateral against initial margin is estimated to **increase ZAR cash liquidity by R20 billion to R27 billion** across all JSE derivative markets
- Cost of capital savings estimated between R900 million and 1.2 billion per annum across all clients\*
- With ITaC Project 1 go-live in Q1 2018, 82% of this increased ZAR cash liquidity could be realised from the EDM and FXD markets – remaining 18% to be realised soon thereafter as securities collateral is rolled out for the IRD and CDM markets

### Default fund benefits

- The ability for Clearing Members to pledge securities collateral against their default fund contributions is estimated to **increase ZAR cash liquidity by a further R240 million to R320 million**
- Clearing members, depending on the size of their default fund contributions, could see a cost of capital savings from R300 thousand up to R3.6 million per annum \*

*\* Based on an average cost of capital of 11% and JSE initial margin investment rate of 6.7% (this excludes any CSD, CSDP and Clearing Members fees for the securities collateral service)*

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# JSE collateral service and processes

## Overview of service



- Securities collateral will be accepted for the following obligations
  - **Initial margin** including the Liquidation Period and Large Position add-on's and settlement margin
  - **Default fund contributions** (of Clearing Members)

*NB: Variation Margin is always payable in ZAR cash*

- The securities collateral service will be available to the following participants
  - **Trading members** for their proprietary trading exposures
  - **Clients** in the Derivative markets who are non-controlled clients in the Equity market
  - **Clearing Members** for default fund contributions

# JSE collateral service and processes

## Overview of service (cont.)



- The **pledge** mechanism will be used
  - Corporate actions on pledged securities will be entitled to the collateral giver
  - Securities Transfer Tax (STT) will not be applicable on securities pledged to the JSE
- Participants will pledge securities **directly to JSE Clear**
- To minimise inefficient daily security collateral movements, **excess and deficit tolerances** may be set
  - Securities will not be pledged or released unless the tolerances are breached

# JSE collateral service and processes

## Overview of service (cont.)



- Excess and deficit thresholds will be based on either a percentage or absolute amount:

Threshold Type	Percentage Based	Absolute Amount
<b>Deficit Threshold</b>	<b>E.g. Deficit threshold set at 10%</b>  No additional securities will be pledged until the exposure amount that can be covered exceeds the value of the pledges by more than 10% i.e. until there is a deficit in the collateral amount of 10%	<b>E.g. Deficit threshold set at R1million</b>  No additional securities will be pledged until the exposure amount that can be covered exceeds the value of the pledges by more than R1million i.e. until there is a deficit in the collateral amount of R1million
<b>Excess Threshold</b>	<b>E.g. Excess threshold set at 10%</b>  No pledged securities will be released until the value of the pledges exceed the exposure amount that can be covered by securities by more than 10%	<b>E.g. Excess threshold set at R1million</b>  No pledged securities will be released until the value of the pledges exceed the exposure amount that can be covered by securities by more than R1million





- Collateral pledged to the clearing house will **only be accessed in the case of a default**
- To ensure that members and JSE Clear are **adequately covered** the following risk management factors will apply:
  - I. **Minimum cash percentage:** a minimum cash percentage will be applicable i.e. only a certain percentage of the obligation may be collateralised with securities
    - Clearing members may set higher minimum percentage on their trading members and clients
    - Trading members may in turn set a higher minimum percentage than the clearing member, on their clients
  - II. **List of eligible securities:** only a certain set of highly liquid SA listed securities will be admissible as collateral
  - III. **Valuation haircut:** to mitigate against potential decreases in collateral asset values
  - IV. **Maximum value per security (ISIN):** a maximum amount that can be pledged per security e.g. a maximum of R1 billion of Naspers shares may be pledged per client

# JSE collateral service and processes

## Collateral risk management (cont.)

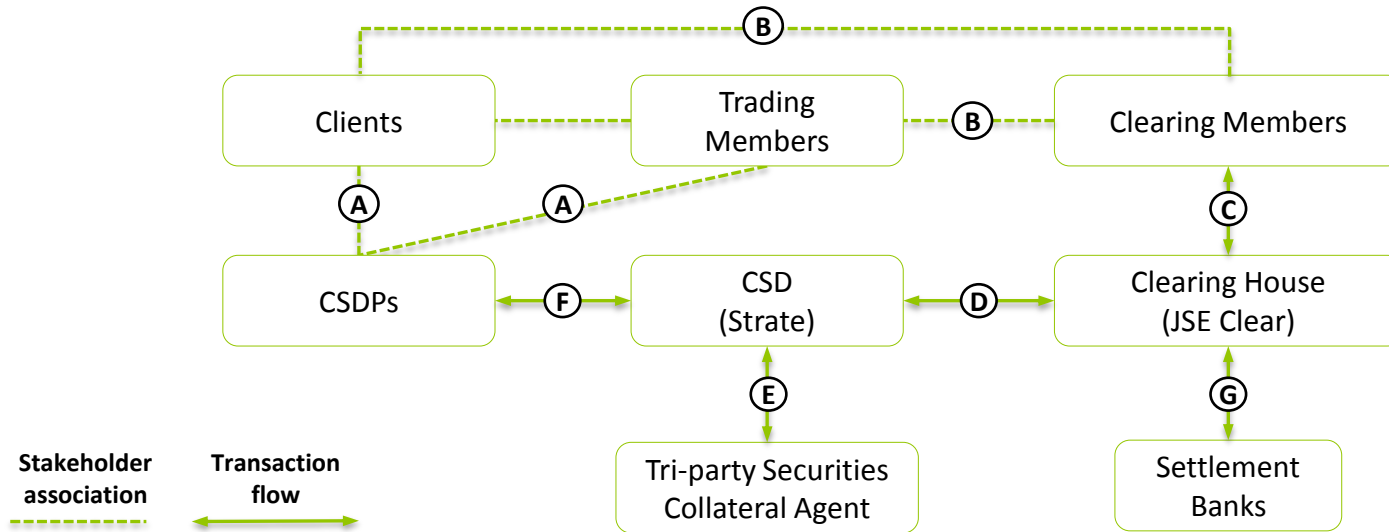


- The values of the above mentioned risk management factors are planned to be finalised closer to the go-live date (Q1 2018) and are subject to relevant JSE Clear governance and committee approvals, however in order to assist clients in planning their take-up of this service, the following indicative values may be considered:

Risk Management Factor	Indicative Value
Minimum cash percentage	JSE Clear will stipulate, per participant, the minimum proportion of obligation that must be covered by ZAR cash. This proportion is to be set at <b>40% at inception of the service</b> . JSE Clear plans to decrease this proportion over time and anticipates that the minimum ZAR cash amount will not be set lower than 20%. This proportion may change from time to time.
List of eligible securities	Only a <b>subset of SA government bonds and SA listed equities</b> will be eligible to post as collateral. The bonds that may be used to cover margin obligations will be the <b>constituents of the GOVI index</b> . <b>Constituents of the TOP40 index</b> will be the eligible equities. Initially only bonds will be accepted, after which a subset of the TOP40 will be accepted. Finally, when processes have proved to be resilient, the full set of eligible equities will be accepted.
Valuation haircut	In the interest of providing a stable haircut to the market and to align with other areas of the industry, the anticipated <b>haircut on bonds will be 10% and for equities it will be 15%</b> . This will apply to all ISINs.
Maximum value per security (ISIN)	JSE Clear will publish the maximum amount of each eligible ISIN that may be pledged, this will be related to the particular security's liquidity.

# JSE collateral service and processes

## Primary Stakeholders



### Associations and transaction flows:

- Clients and Trading Members setup Segregated Depository Accounts (SDA) at the CSD via their CSDPs
- Initial margin amounts confirmed by JSE Clear with Clearing Members as part of the daily end-of-day process
- Allowable securities collateral amount sent to Strate per Client and Trading Member
- Utilising their tri-party securities collateral service, Strate will allocate or release securities as available in Client and Trading Member SDA accounts
- CSDPs are required to commit to all security pledge and release requests in order for them to be valid
- JSE to determine remaining cash amount required (i.e. total margin required less pledged securities) and cash settlements are done via the settlement banks

# JSE collateral service and processes

## Overview of Collateral Processes

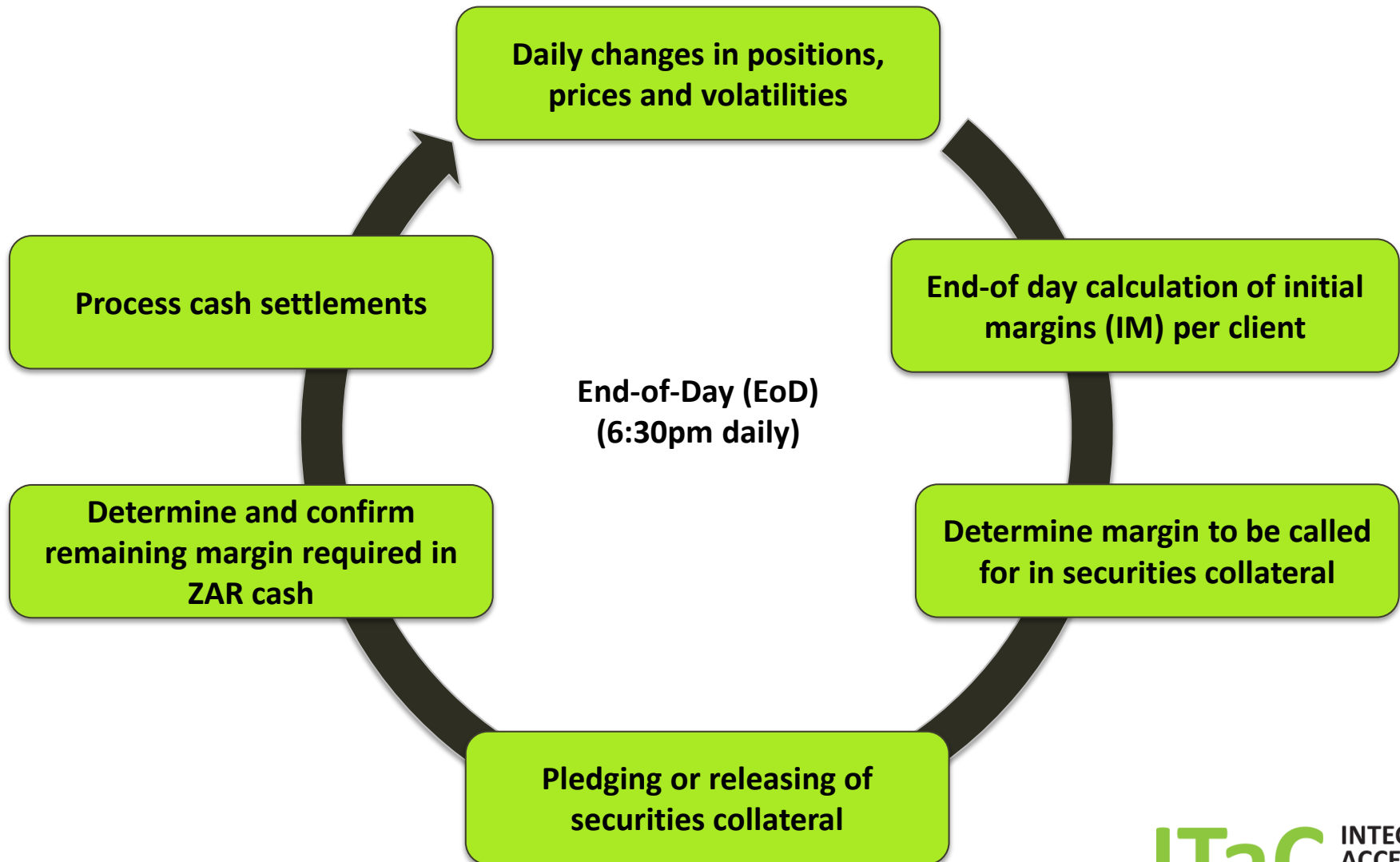


The key collateral processes are:

- **End-of-day:** Pledging of securities collateral against initial margin
- **Intra-day collateral rebalancing:**
  - Withdrawal of pledged securities (call for more cash)
  - Release of cash if additional securities have been pledged
  - Revaluing of pledged securities resulting in top-ups/releases
- **Throughout the day:** Securities for securities substitutions
- **Corporate actions:** Processing of corporate action events against pledged securities
- **Default management:** Liquidation of securities collateral in the event of a default

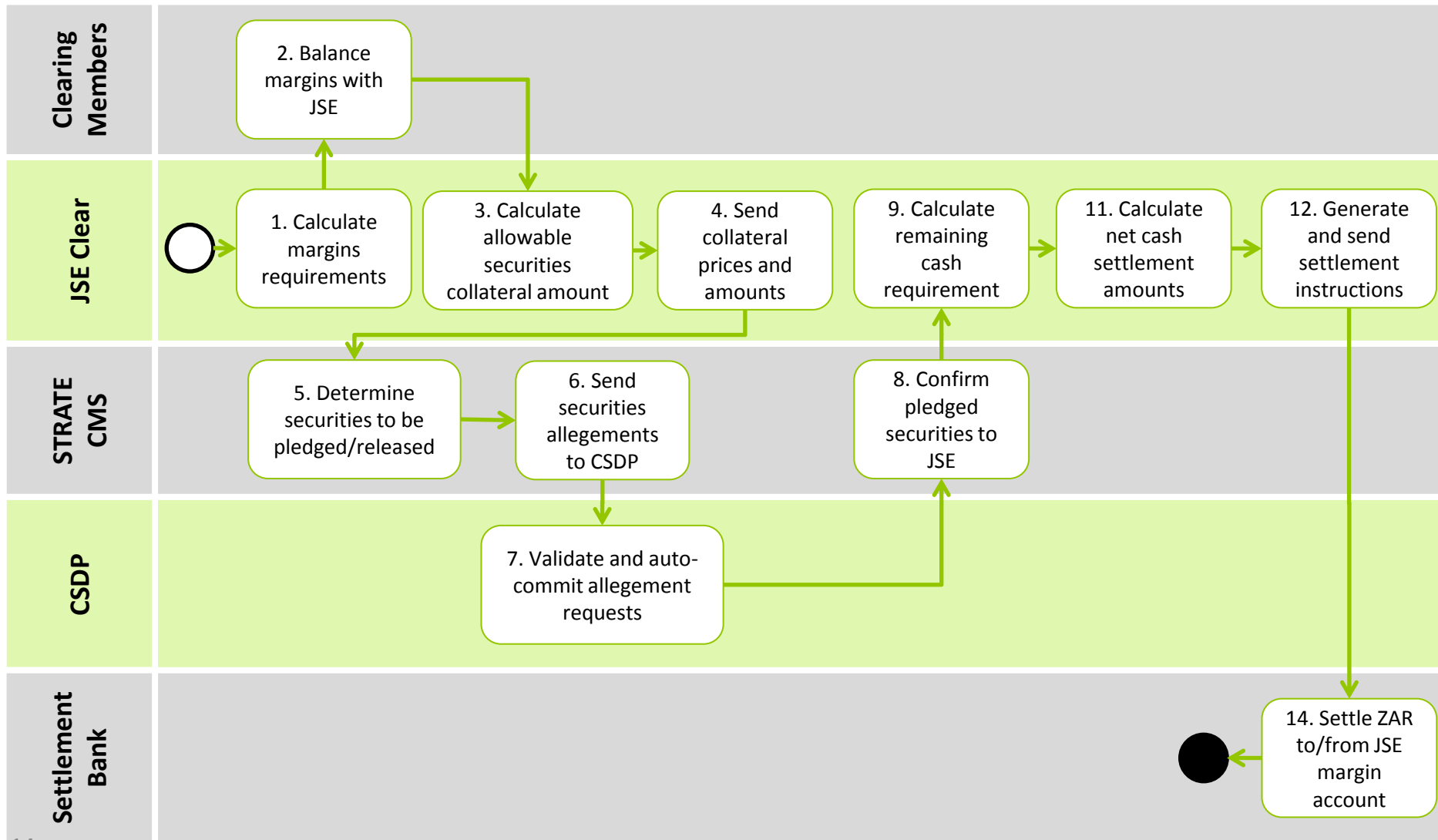
# JSE collateral service and processes

## End-of-Day (EoD) – Process overview



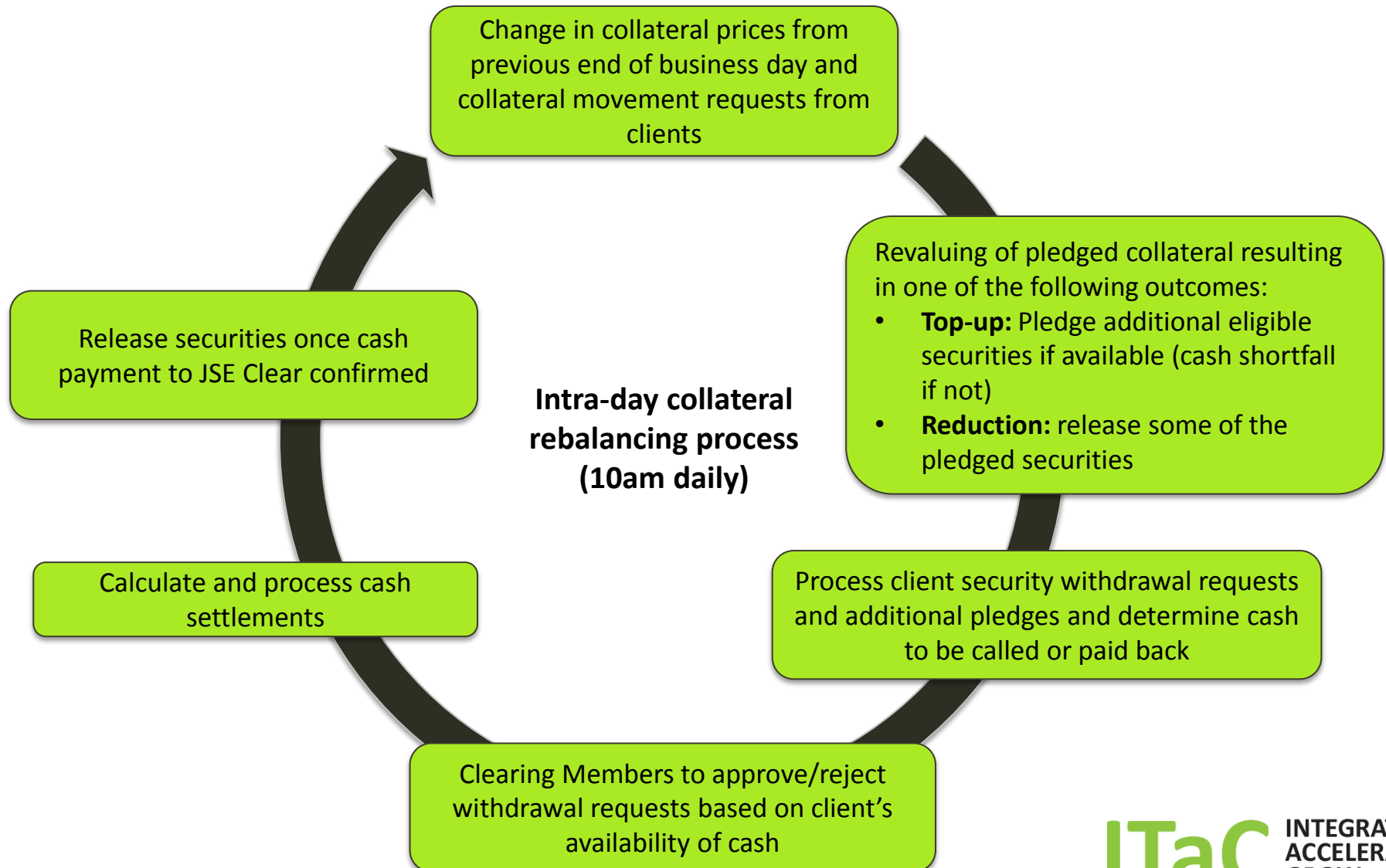
# JSE collateral service and processes

## End-of-Day (EoD) – Processing steps



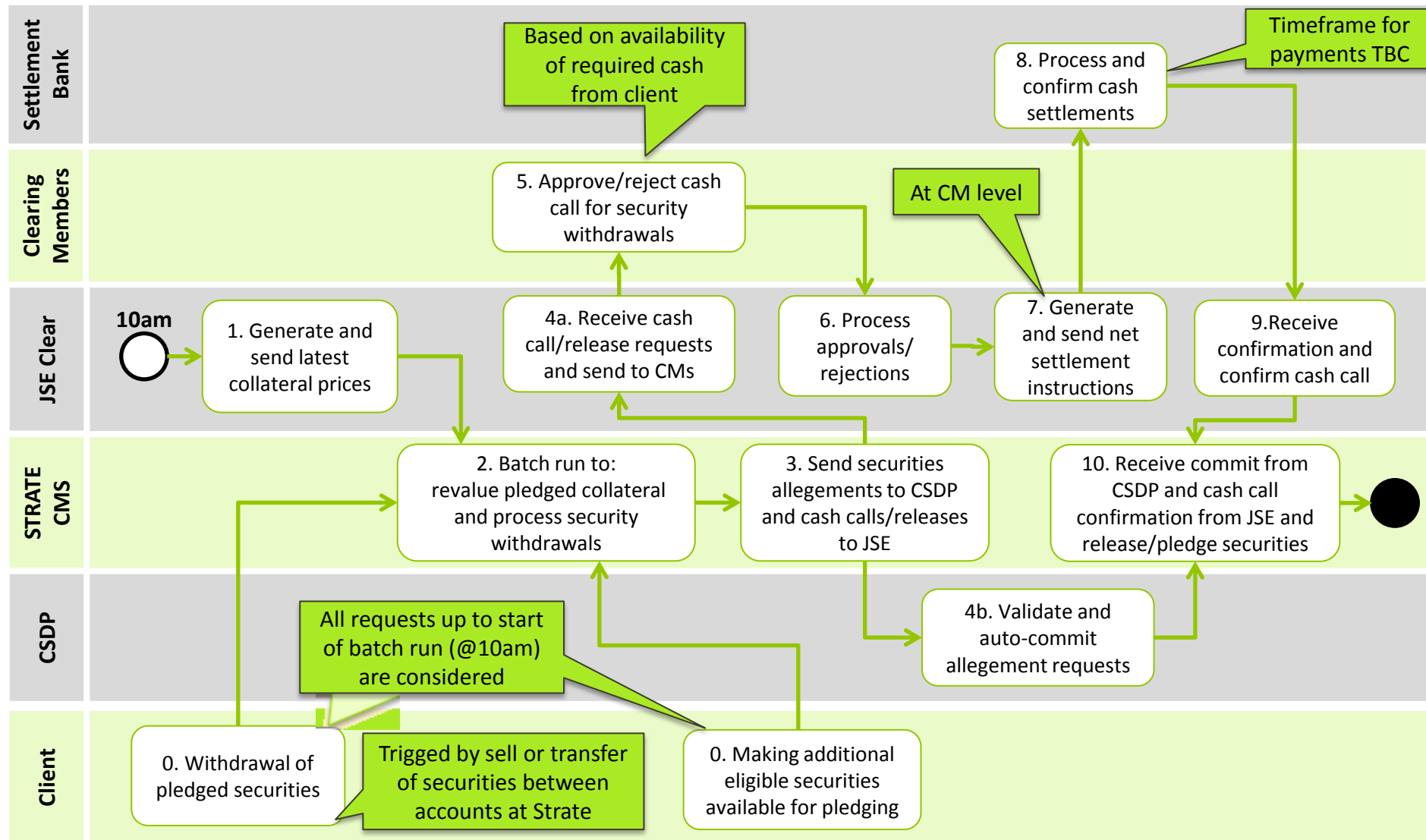
# JSE collateral service and processes

## Intra-day rebalancing – Process overview



# JSE collateral service and processes

## Intra-day rebalancing – Processing steps





# JSE collateral service and processes

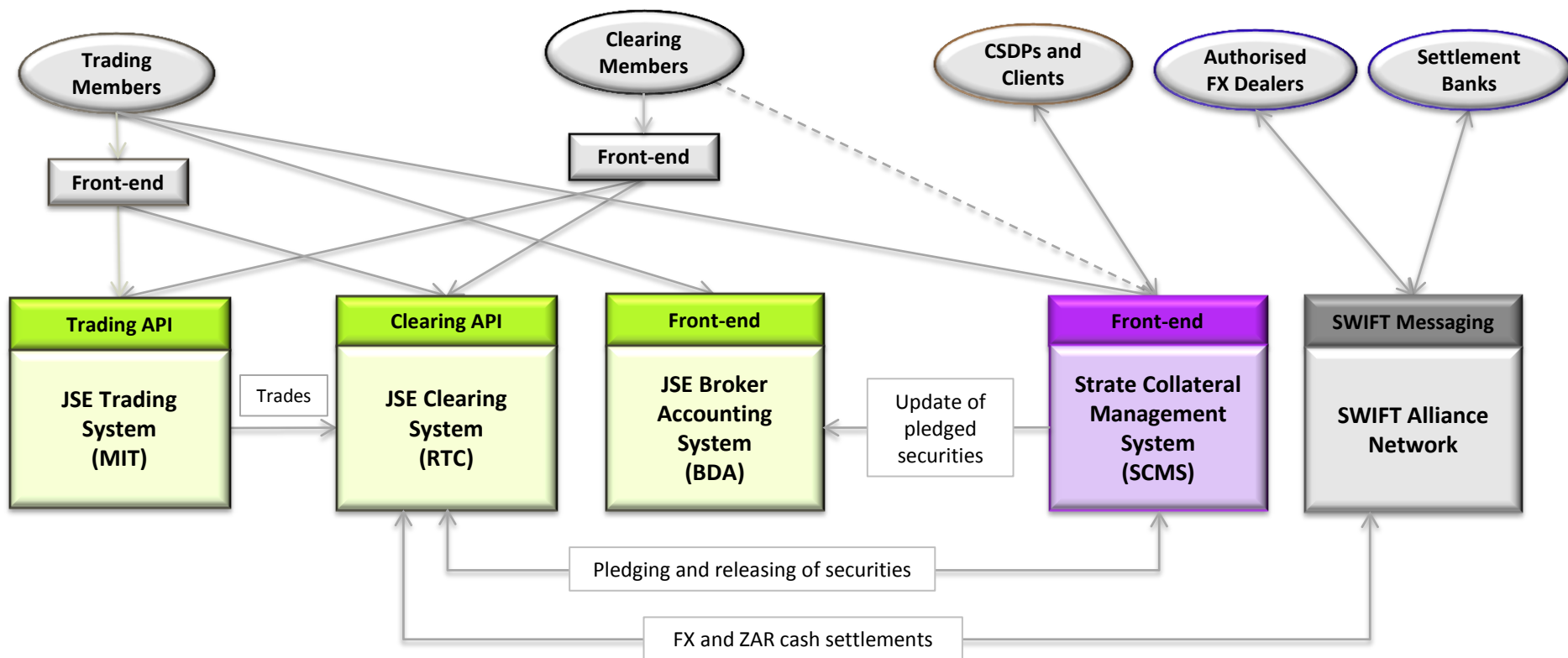
## Intra-day rebalancing – Key considerations



- **Cash for security** substitution (i.e. security withdrawal) requests received after 10am will only be processed during the intra-day rebalancing process the following business day
- Any additional securities that are made available for pledging (i.e. **securities for cash** substitution) throughout the day will be pledged to the JSE if within the maximum securities collateral allowance limit
  - The cash release as a result of the additional pledged securities will only be processed during the intra-day rebalancing process or at EoD; clients may be over-collateralised for a few hours in cases
- In order to fully service clients' collateral substitutions, top-ups and releases
  - Clearing members must be able to timeously approve security withdrawal requests
  - CSDPs will need to perform commits during the day and for the intraday rebalancing process by the certain cut-off times during the day; auto-commit capability required
- Intra-day cash settlement instructions must be processed **before SAMOS cut-off**

# JSE collateral service and processes

## Systems and interfaces



Clients and Trading Members will have access to a secure web based front-end, provided by Strate, that will enable them to input collateral management instructions, view the real-time status of instructions, and track settlement of collateral positions down to security level

# Agenda

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# Proposed collateral process timings

Normal (typical) day - EOD



EOD Process	Entity	Timing
JSE Clear sends EOD prices to Strate	JSE Clear	~17h45
JSE Clear & Clearing Members balance on margins	JSE Clear	18h55
JSE Clear sends exposures to Strate	JSE Clear	By 19h00
Collateral allocation process	Strate	19h00 to 19h25
CSDPs auto-commit to collateral allocations	CSDPs	19h00 to 19h30 <sup>1</sup>
Generation of EOD collateral statement	Strate	19h30 to ~19h32
EOD collateral statement processed by JSE Clear	JSE Clear	~19h32 to 19h35
EOD collateral statement processed by BDA	JSE - BDA	19h32 to 19h35
CSDPs complete EOD processes (e.g. recons)	CSDPs	To be advised

<sup>1</sup> *Subject of discussion with CSDPs*

# Proposed collateral process timings

## Exception Scenarios



- Exception scenarios include
  - **Delays in the JSE Clear EOD balancing process** with Clearing Members
  - **Issues identified post balancing** with Clearing Members which require rerunning of Clearing EOD process to recalculate initial margins
  - **Delays preventing running of collateral processes** e.g. system issues experienced by participants in the process (JSE, Strate, Clearstream, CSDPs)
- The basic approach to collateral management in the event of exceptions
  - If issues are resolved **before a specified cut-off time**
    - **The collateral process will be run or rerun** as applicable
  - If issues are **not resolved by specified cut-off time**
    - **Latest available collateral statement will be used**

# Proposed collateral process timings

## Exception Scenarios (cont.)

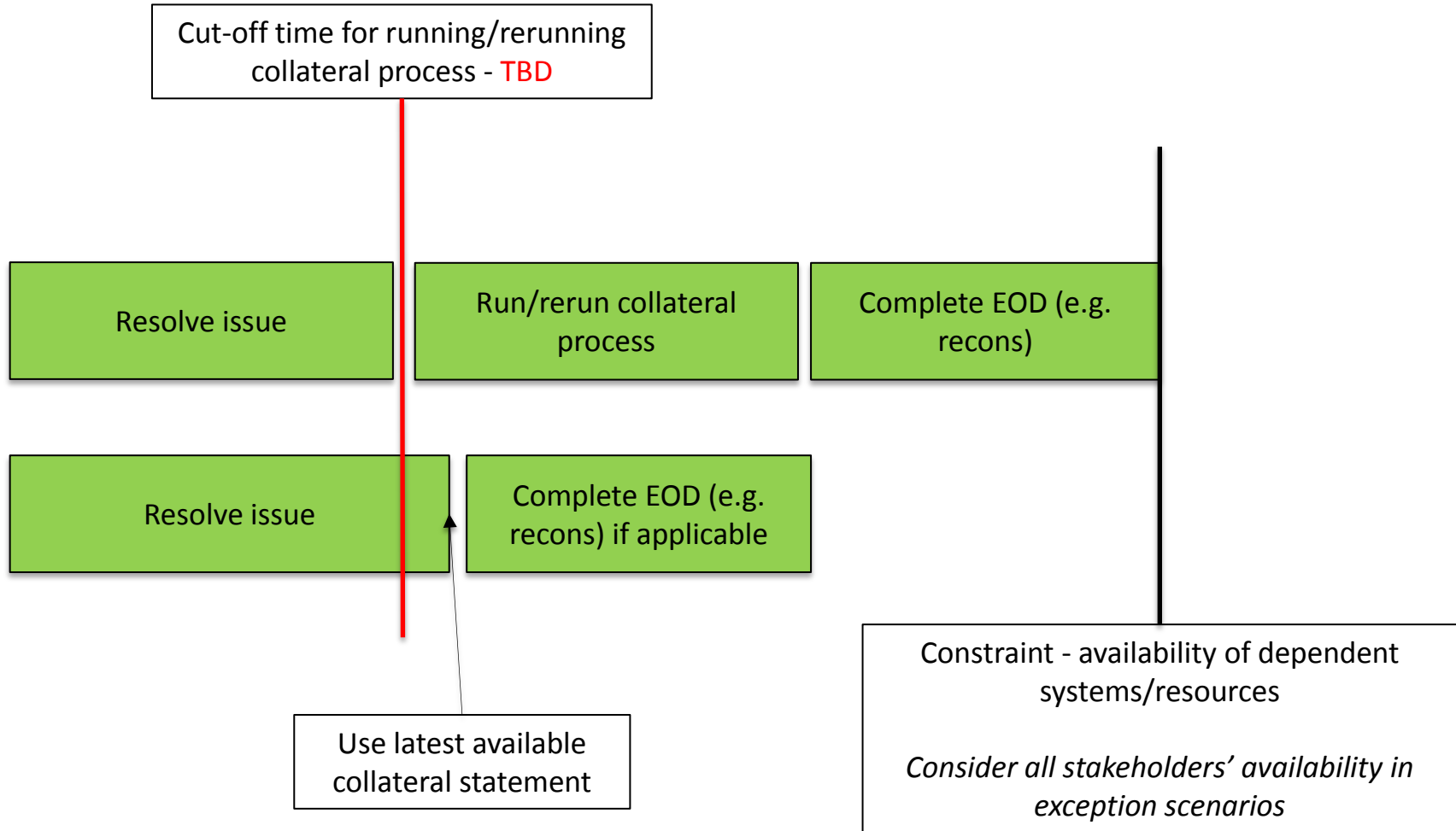


- In the event issues are **NOT resolved** by the pre-determined cut-off time the **latest available collateral statement will be used** by JSE Clear in determining ZAR cash margin amounts

Exception category	Collateral statement used in Clearing EOD	Business implication
Delays	Collateral statement received prior to EOD process on T at 18h00  <i>Statement will be based on T-1 exposures</i>	Exposure increases on T will need to be settled in cash  Exposure reductions on T will not result in release of securities collateral (until EOD on T+1)
Issues in Clearing EOD requiring restatement of initial margins	Collateral statement received as part of initial Clearing EOD at ~19h32	Differences between IMs from initial Clearing EOD and corrected IMs will need to be settled in cash

# Proposed collateral process timings

## Exception Scenarios (cont.)



# Proposed collateral process timings

## Intraday rebalancing



### Normal (Typical day)

- The intraday rebalancing process is envisaged to run mid-morning ~10am
- Exact timing to be determined considering
  - Money market/treasury desk windows i.e. cut-off times for Clearing Members/participants to arrange the necessary cash funding
  - Cash Equity settlement window
  - SAMOS cut-off

### Exception scenarios

- In the event of exceptions (e.g. system issues causing delays) process times will be extended as far as possible to accommodate the delays



- JSE collateral service and processes
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- As a result of the 'pledge' mechanism being used for the posting of securities collateral, outcomes of corporate actions on pledged securities will be entitled to the collateral giver e.g. dividend proceeds will be paid directly to the collateral giver
- The impact of corporate actions on pledged securities may result in two possible outcomes:
  - Pledged securities become ineligible and need to be substituted with cash or other eligible securities
  - Pledged securities remain eligible and are revalued accordingly
- In the event that pledged securities become ineligible as a result of a corporate action, the JSE will send out a market notice well in advanced to all impacted clients advising to start substituting out these securities
- In addition, the JSE may gradually start to limit the amount of these securities that may be pledged a few days leading up to last date of trade (LDT)

# Corporate Actions

## Process steps

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- **Step A:** Daily update of corporate action schedule
- **Step B:** JSE assess and identifies all corporate action events that may have an impact on any of the JSE eligible securities collateral. Two possible assessment outcomes:
  - Securities become ineligible e.g. de-listing, name change
  - Security remain eligible e.g. cash dividend
- **Step C:** JSE to send out a corporate action market notice to all clients who have pledged securities that are impacted
- **Step D:** Upon (LDT-5), JSE may start to gradually reduce the maximum value that can be pledged for securities that will become ineligible
  - This is done to minimise large potential cash calls at EoD on Record Date (LDT+3)



- **Step E:** Upon (LDT-3):
  - Strate will automatically start triggering substitution requests (securities for securities or cash for securities) for all securities that will become ineligible
- **Step F:** Upon (LDT):
  - For pledged securities that will remain eligible, Strate will automatically lock all pledges between LDT and Record Date (RD)
- **Step F:** Upon (LDT+3) i.e. Record Date:
  - Pledged securities that remain eligible will be unlocked
  - Remaining pledged securities that are ineligible will be automatically unpledged, resulting in a mandatory cash call at EoD

# Agenda

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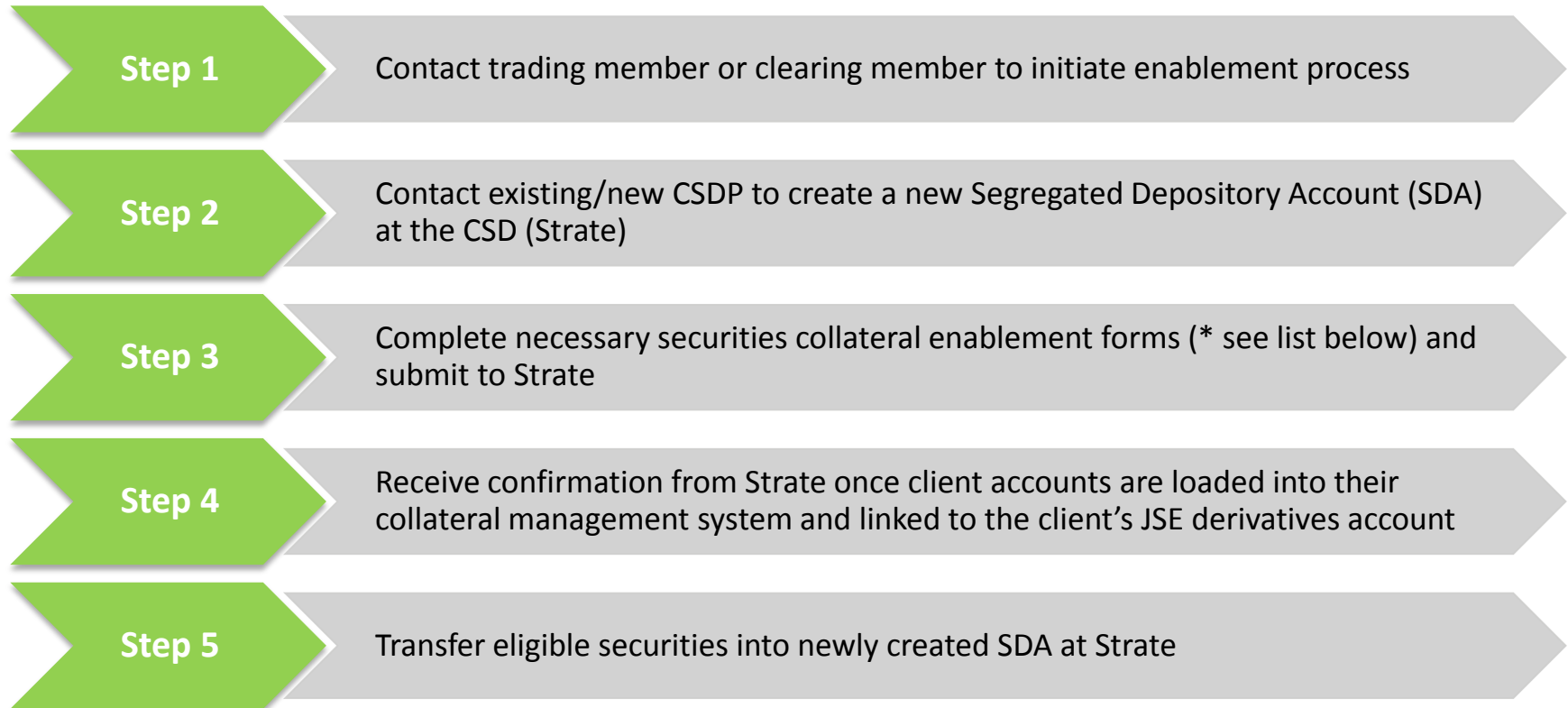


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# Client enablement process



Steps to be followed by clients to be enabled for securities collateral service:



**\* List of forms to be completed by all new clients at Strate:**

- Collateral Management Service Agreement (CMSA) for Collateral Givers
- Customer and Segregated Depository Application Form
- Strate Collateral Management Eligibility Giver Forms



For any queries please contact the JSE:



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