

## **Business Process Requirements Document**

### **Broker Netting via a CCP Solution**

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## 1. Introduction

### 1.1. Overview

The securities processing environment has undergone a period of significant change over the last decade. These changes have impacted all parties to transactions, enhancing processes for Investment Managers, Broker Dealers and the Custodians that support these transactions.

The introduction of central counterparty [CCP] clearing for exchange execution has provided significant benefits to the wider industry. Most notably a significant impact on the process efficiency when providing market execution services to investment managers and hedge funds has been achieved. Additionally, when coupled with other technological advancement, this has removed processing constraints enabling a higher volume of executions to be supported by both Exchanges and Broker Dealers.

Similarly, with regard to buy-side transaction processing, significant process improvements have been achieved. The majority of the larger market participants demonstrate clear support for a Block Level, electronic trade affirmation. The levels of same day trade booking and same day trade confirmation are achieving historical highs, but have not yet penetrated lower volume clients. The result is a fragmented market where the 'haves' achieve low cost STP processing and the 'have not's' remain labour intensive to service without achieving electronic trade economic comparison early in the trade lifecycle.

Further change is anticipated in Europe, including shortened settlement cycles, stricter settlement discipline and potential CSD consolidation. Such proposals will challenge the existing market structure and, if securities markets are to continue to operate in an orderly manner, it will require changes in the behaviour of all market participants.

It is the view of the contributors to this document that the securities landscape is best served by setting out "best practice" standards in order to support the necessary adjustments to processes.

The purpose of this document is to outline proposed standards from the Broker Dealer community and solicit feedback from other industry participants. The aim of this approach is to:

- i) Adopt a processing model that maximises efficiency based on "best practise" standards.
- ii) Achieve common standards applicable regardless of the participant's scale.
- iii) Lower barriers to entry for full STP.
- iv) Introduce competition across the service provider community and influence innovation and pricing given existing market conditions.
- v) Facilitate the processing of transactions at a CCP to achieve significant additional cost reductions for market participants.

This document sets out the view of AFME members with regard to the optimal process for netting of broker to broker transactions via a CCP, including executing and prime broker participants. Initial focus is on the cash equities product, but will in future include an appendix for debt specific considerations.

The AFME Post Trade Execution Services (PTES) Broker Matching and Netting taskforce will produce additional documents pertaining to;

1. OTC Broker to Broker Matching
2. Bilateral Netting via a Vendor

Other AFME PTES work streams are generating separate documents covering;

1. Client Processing Automation
2. Tri-Party Matching from a securities perspective

## 1.2. Business Process Objectives

The objective of this business process is to ensure that transactions matched between broker participants by the process determined CCP cut-off's are made eligible for netted settlement via a CCP.

Achieving this target will generate the following benefits;

1. Reduce the number of gross settlements on matched transactions, and
2. Reduce the number of transactions that reach a status of failed due to inventory and mismatching instructions.
3. Provide a platform to achieve a single net per firm across market and off exchange transactions.
4. Incentivise electronic trade matching & affirmation as a by product of benefits 1 & 2 above.

A further aspiration is for these matched transactions to form part of a single net per security per firm across exchange and off exchange flow via a CCP. It is the accepted view that this utopian state is some way from being accomplished.

## 1.3. Assumptions and Constraints

The following assumptions have been made:

- i) The vendors within the process are open to work with the industry participants to modify processes as required.
- ii) The vendors will be able to build to multiple message formats, and support participant preference.
- iii) The CCP's will be able to incorporate the off-exchange flow into existing net transactions if processing deadlines can be met.
- iv) Broker participants will be using the same CCP or interoperability will be available.
- v) The implementation of T+2 settlement will occur as part of European legislation by 2015.

The following items have been identified as constraints to this proposal:

The broad number of participants will result in a staggered time to adoption, and therefore an extended period to achieve full benefits.

## 2. Netting via a CCP: Overview

The vendor should provide functionality which allows brokers the option to have their matched OTC transactions sent to a CCP for netting.

Where a vendor has the capability to connect to multiple CCP's, and the CCP's are interoperable, it should be possible for brokers to clear their OTC transactions via their CCP of choice; therefore allowing brokers to follow their current clearing models in place today.

Note: Currently some vendors are unable to connect to multiple CCP's. However the desired state would be for vendors to be able to connect to all CCP's to allow brokers flexibility around their CCP of choice. In turn this will also reduce costs for brokers who wish to eventually net together OTC and on exchange transactions.

In addition, not all OTC transactions would be eligible for netting via a CCP; currently not all markets are supported by all of the CCPs and some markets have restrictions which prevent OTC trades from being netted. Therefore, brokers opting to utilise CCP netting will require functionality within the vendor platform to exclude trades against particular markets (by PSET) from being sent to a CCP.

Where a market is not supported by a CCP brokers should have the option to instruct trades on an individual basis or bilaterally net via the vendor netting engine.

This document proposes that the following functionality should be offered to brokers:

1. Netting Eligible Trades:
  - I. Matched trades will be passed to each brokers CCP of choice to be included in a netting cycle. (See Section 6.1).
  - II. Unmatched trades which become matched prior to the final CCP cut-off will be passed to the CCP to be included the second netting cycle. (See Section 6.4.3.1).
  - III. Upon a net cycle being initiated, all gross executions will be netted together (as per the current netting calculation used by each CCP).
  - IV. At the end of each net cycle, a net trade report will be generated and passed by the CCP to brokers for each net created (as per the current on exchange and MTF flow).
    - i. A gross trade report will also be returned by the CCP for reconciliation purposes.
  - V. Trades which remain unmatched post the final netting cycle will receive a status to trigger the brokers in house system or the vendor (where POA is in place) to release the settlement instruction at a gross level. (See Section 6.4.5).
2. Trades Not Eligible for CCP Netting will either:
  - I. Receive a status update from the matching platform to trigger the brokers in house system or the vendor (where POA is in place) to release the settlement instruction. (See section 6.5).
  - II. Be passed to the vendor netting engine to be netted. This document will not detail these requirements; See "AFME Broker OTC Bilateral Netting via a Vendor" documentation.
3. Trades Excluded from Netting will
  - I. Receive a status update from the matching platform to trigger the brokers in house system or the vendor (where POA is in place) to release the settlement instruction. (See Section 6.5).

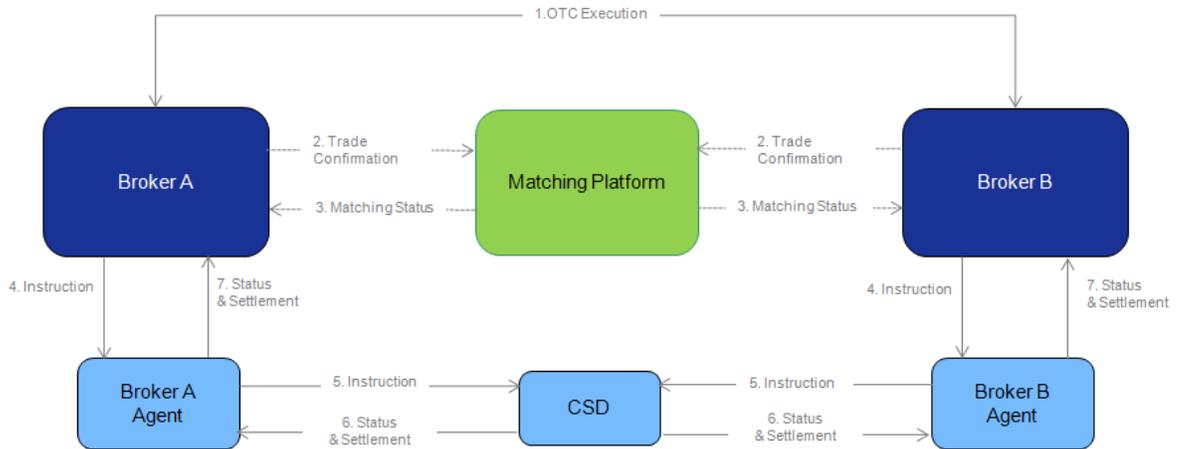
The vendor will also be required to handle cancel and corrects for trades which have been passed to the CCP and are earmarked for netting, and trades which have been netted by the CCP. This document also proposes the vendor offer the following functionality:

- It will not be possible to process a cancellation for a gross execution which has been earmarked for netting or has been included in a net without a cancel request procedure being followed.
  - Earmarked Trades: Upon the cancel request being accepted, it is proposed that the matching engine cancel the matched pair and send a cancellation to the CCP. Upon the CCP accepting the cancellation a status confirming the matched trades have been withdrawn from the net will be returned. (See Section 6.4.1.3).
  - Netted Trades (Post Netting Cycle 1, Prior to Final Net Cycle): Upon the cancel request being accepted, it is proposed that a contra trade (opposite of the original matched trade) be created, by the broker or the vendor, which is then passed to the CCP to be included in the next net to reverse the original movement. (See Section 6.4.3.2).

- Netted Trades Post Final Cycle: Cancellations will not be processed; the broker should prevent cancels from being passed to the matching engine or the matching engine should mark any cancels received as exceptions. (See Section [6.4.5.4](#)).

## 3. Current State Overview

### 3.1. Current State Overview Diagram



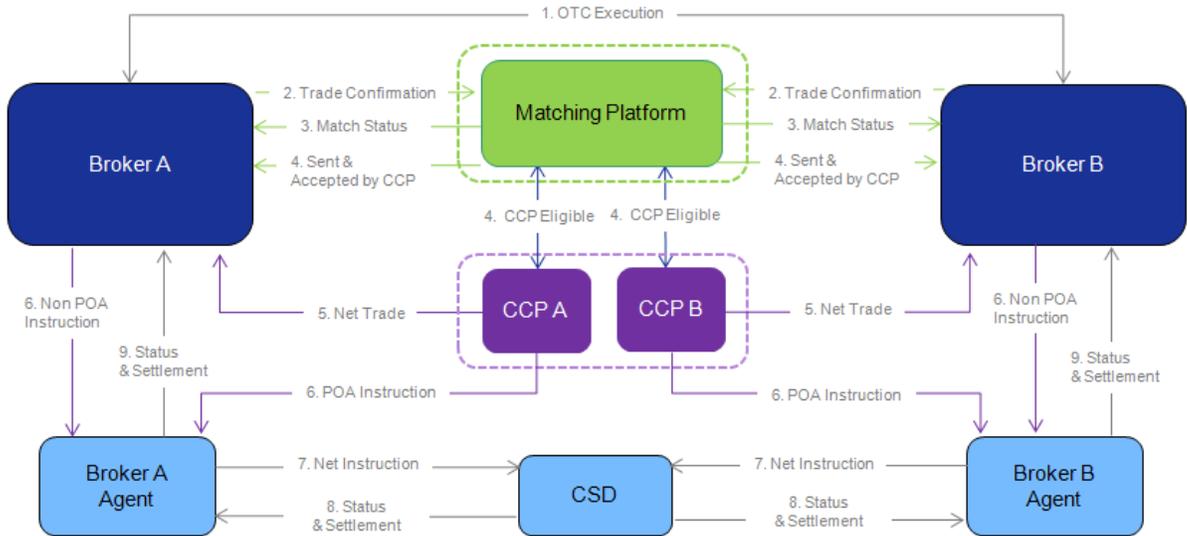
#### 3.1.1. Current State Business Process

At present, there are a number of external matching platforms available to brokers to match OTC transactions. Brokers who are subscribed to these services are able to match OTC transactions real time with other brokers subscribed to the same vendor/service. This approach allows brokers to manage their risk real time.

## 4. Netting via a CCP Future State

The following section is a high level overview of the proposed future state for netting OTC transactions via a CCP; sections 5 and 6 document the detailed requirements.

### 4.1. Future State Overview: CCP Eligible Trades



6. For simplicity, this diagram does not show an instruction direct to a CSD (where a broker is a direct member).

### 4.1.1. Future State – High Level Business Process

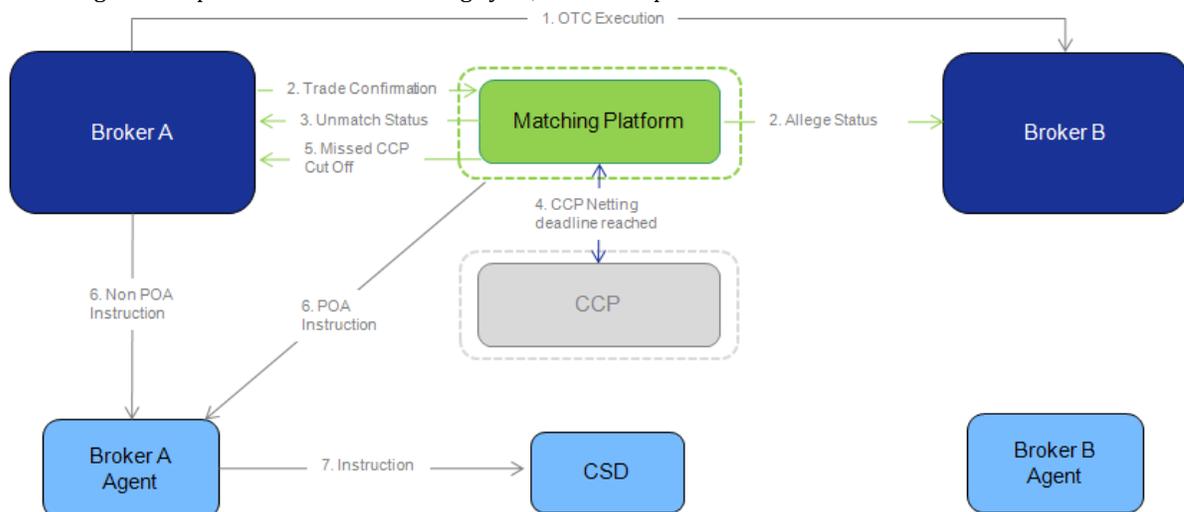
#### 4.1.1.1. CCP Eligible Trades Prior to Completion of Final CCP Netting Cycle

Process ref. #	Process	Application /Owner	Notes
1	OTC transactions will be executed between brokers.	OTC Broker Execution	
2	Both brokers of the execution will generate a trade confirmation message to be sent to the matching platform (format of communication to vendor will be broker preference).	OTC Broker Execution	
3	The matching platform will look to match the corresponding trades.	Matching Platform	See 'AFME Broker Matching Business Process Requirements' Document.
4	Settlement instructions for the gross executions will be suppressed and not sent to the market.	OTC Broker Execution	
5	All trades matched prior to the completion of the final netting cycle will be passed from the Matching Platform to each brokers CCP of choice.  A status update will be returned to each broker to confirm that the trades have been sent to the CCP and a second status to confirm the CCP has accepted the trades.	Matching Platform > CCP	Matched trades will be passed to the brokers CCP of choice immediately after becoming matched.
6	Each CCP will place all trades into a running net which will calculate the current net position for each broker throughout the	CCP	Each CCP will need to ensure

	day until the first netting cycle is initiated.		they have the same population of trades. It is expected that each CCP follow current on exchange netting calculations to calculate OTC net trades.
7	Following the first net cycle completing at 17:00* on T, each CCP will return a net report to each broker for all nets calculated at the end of the net cycle.  As per the current on exchange and MTF flow today, the net report will be returned upon completion of the net cycle which is set to run at 17:00*.	CCP	Nets will be locked in.  *Net Cycle timings will be set per CCP. See section 6.3.2.
8	Upon receipt of the net report, brokers will create net trades within their internal systems.	Broker Net Trades	
9	Where a POA agreement is in place, the CCP will instruct the market for each broker. Where a POA agreement does not exist between the CCP and a broker, the broker will instruct the market for each net execution.	Settlement Instructions	Broker preference.
10	A further netting cycle will be completed by the CCP at *17:00 on T+1 for all trades which become matched after the first netting cycle.  This second cycle may also include any back-dated trades booked for T and any cancelled and replaced trades which were received post the first net cycle.  Additional netting reports will be sent to executing brokers for the net executions created in the next cycle.	Netting	Second and final net cycle will be completed on T+1. Brokers will also be able to opt to have their T net re-calculated on the morning of T+1. See section 6.3.2.

#### 4.1.1.2. CCP Eligible Trades Post Completion of Final CCP Netting Cycle

Following the completion of the final netting cycle, the below process will be followed:



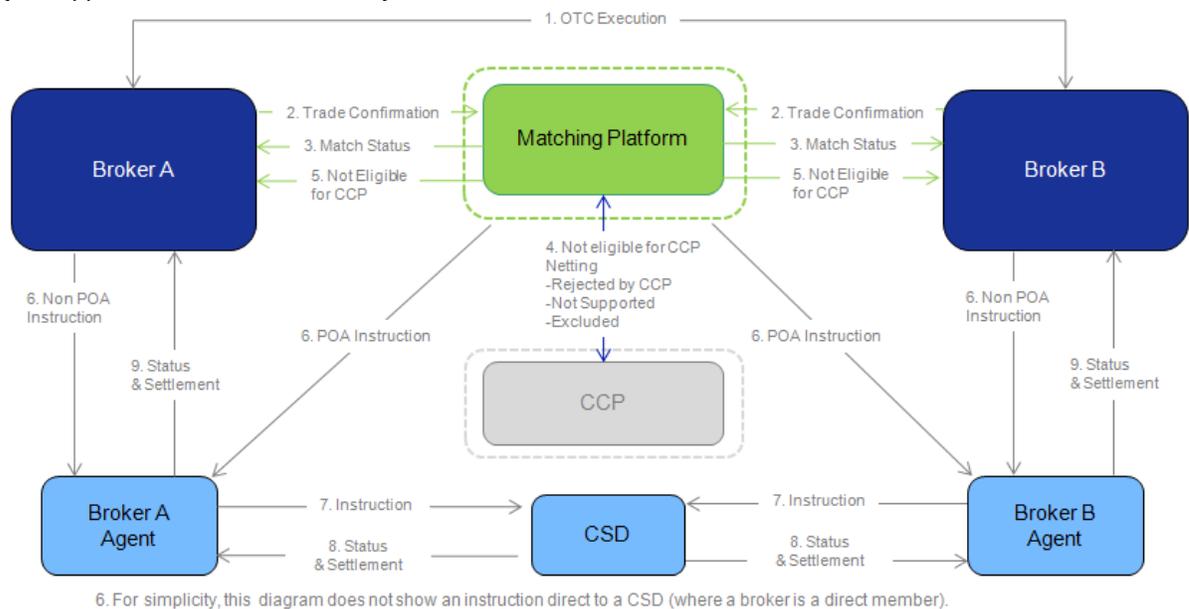
6. For simplicity, this diagram does not show an instruction direct to a CSD (where a broker is a direct member).

Process ref. #	Process	Application /Owner	Notes
1	The matching platform will be required to notify brokers of all trades which remain unmatched post the final netting cycle; allowing brokers to instruct the market for these executions.	Matching Platform > Broker	
2	Upon the final netting cycle being initiated on T+1, the CCP will notify the vendor that the CCP deadline to net transactions has been reached.	CCP > Matching Platform	
3	A 'Missed CCP Cut Off' status update will then be passed onto brokers for all trades which are not matched (unmatched, mismatched, alleged).	Matching Platform > Broker	Brokers must opt to receive this status update.
4	Brokers will either release their settlement instructions to the market upon receipt of the 'Missed CCP Cut Off' status message, or where a POA agreement is in place the vendor will release the settlement instruction for each trade.	Settlement Instruction	
5	Subsequently, if a trade becomes matched, the vendor should ensure that the trades are not passed to the CCP and the 'Missed CCP Cut Off' status is returned accordingly.	Matching Platform > Broker	

## 4.2. Future State Overview: Non CCP Eligible Trades

Where a trade is deemed 'not eligible for CCP netting'; i.e. is not supported by the CCP, it should be possible for the matched trades to be instructed bilaterally.

Note: Brokers will also have the option to have any trades which are non CCP eligible to be netted via the vendor netting engine. This flow is documented in the AFME Broker Bilateral Netting via a Vendor document (see Appendix for link to document).



Process ref. #	Process	Application /Owner	Notes
1	OTC transactions will be executed between brokers.	OTC Broker Execution	

2	Both brokers of the execution will generate a trade confirmation message to be sent to the matching platform (format of communication to vendor will be broker preference).	OTC Broker Execution	
3	The matching platform will look to match the corresponding trades.	Matching Platform	See 'AFME Broker Matching Business Process Requirements' Document.
4	The matching platform will identify that the trades are not eligible for CCP Netting: <ol style="list-style-type: none"> <li>1. The CCP does not support the market or security of the trade</li> <li>2. The market or trade type has been excluded by a broker pair</li> <li>3. A rejection status message has been received from the CCP upon the trades being passed to the CCP</li> </ol>	Matching Platform	
5	Upon the trades being identifies as not eligible for CCP Netting, the matching platform will return a 'Not Eligible for CCP' status update to brokers	Matching Platform > Brokers	Brokers must opt to receive this status update.
6	Brokers will either release their settlement instructions to the market upon receipt of the 'Not Eligible for CCP' status message, or where a POA agreement is in place the vendor will release the settlement instruction for each trade.	Settlement Instruction	

## 5. Netting via a CCP: Matching and Affirmation

### 5.1. Changes to Trade Matching and Affirmation Requirements

All OTC broker executions will be processed by the matching platform, as per the flow documented in the 'AFME Broker Matching Business Process Requirements Document' (see Appendix for link to document). However, in order for a broker pair to utilise the CCP netting functionality the following changes will be required to the vendor matching logic:

- Brokers will be required to identify the payment method of the trade to enable the matching platform to identify which trade types are eligible to be passed to the CCP. Therefore this field will now be mandatory for matching. (See section 6.1 for trade scope)
- PSET will be a mandatory field for matching. This will allow the matching engine to identify which CCP the trades should be passed to. (See section 6.1.2.1).
  - This will also ensure that the broker supplies the correct PSET for the location of where the trade is required to be settled.  
Note: Any realignment required will be processed by the broker.
- An agency/principal indicator may be required by CCP's on each transaction (this will need to be confirmed by CCP's during the functional analysis stage). Where possible, the broker should provide this indicator on all trade confirmations. Else the vendor should hold this information within each brokers static data configuration.
- Where the transaction is an executing broker vs prime broker execution, safekeeping account may need to be included.  
Note: It is unknown whether the safekeeping account will need to be provided by the vendor to the CCP on all executing broker vs prime broker transactions; this will need to be confirmed during functional analysis stage.
- Additional analysis may be required to understand if there are any markets where specific handling is required and therefore additional data to either be supplied on a trade confirmation or held by the vendor static data tables.
- A change to the vendor releasing instructions (where a POA agreement is in place) will be required; matched trades which have been passed to the CCP should not be instructed, matched trades which have not been netted should be instructed upon a status update from the CCP, i.e. 'Rejected by CCP'.

In addition, it is likely that the CCP will require additional data to be supplied on the incoming trade details in order to successfully net, for example the Broker identifier at the CCP. This analysis is expected to be completed during the functional analysis stage. However it should be noted that if the broker is unable to supply the data on their trade confirmations the vendor will be required to enrich the information before passing trades to the CCP; based on additional data which each broker will supply during the on boarding process.

## 6. Netting via a CCP Detailed Future State

### 6.1. Scope of Trades to be Passed to CCP

#### 6.1.1. CCP Selection

Brokers currently have the option to clear on exchange transactions via various CCP's.

Of the CCP's available, some brokers have arrangements in place with multiple CCP's and some have the ability to connect to only one\*. Where the vendor has the ability to connect to multiple CCP's, and the CCP's are interoperable, it should be possible for each broker to choose the CCP they require their OTC transactions to clear via (the 'CCP of choice').

Where the vendor does not have the ability to connect to more than one CCP if one or neither of the brokers has an agreement in place currently with this particular CCP, it will not be possible for the broker pair to net via the CCP.

\*At the time of writing this document, it is assumed that the same arrangements will be in place for the rollout of netting OTC transactions.

Note: At the time of writing this document, it is assumed that the following CCP's will be able to net OTC transactions: EuroCCP, EMCF, X-Clear. LCH Clearent (group).

#### 6.1.2. Markets

The existing on exchange clearing arrangements will determine which markets are supported by which CCP, therefore also determining whether a market is eligible for CCP netting or not. It is assumed that the same arrangements will be supported for OTC Transactions.

##### 6.1.2.1. CCP Eligible Markets

Whilst each broker may have a preference of CCP they would like to clear their OTC transactions via, this decision will be impacted by whether their CCP of choice supports the markets the executions have been traded in, and also if their counterparty broker has an arrangement in place with a CCP to clear in the same market.

In addition, it should also be possible for a broker pair to determine their own market eligibility requirements. Whilst a market may be supported by a CCP, the broker pair may agree that for OTC transactions the market should be excluded from netting and therefore handled bilaterally; for example current market regulations and restrictions may cause issues when netting OTC transactions, Where the vendor is able to connect to more than one CCP, the vendor will be required to hold a table showing for each broker pair the markets they have chosen as being eligible for CCP netting, along with the individual brokers preferred CCP for each market.

Example table of Broker preferences:

Broker	Counterparty Broker	PSET	Eligible?	CCP
Broker A	Broker B	SICVFRPPXXX	YES	EUROCCP
	Broker C	INSECHZZXXX	YES	XCLEAR
	Broker D	SICVFRPPXXX	NO	N/A

Upon the matching engine identifying a matched trade as eligible for CCP netting, the trade should be passed to the brokers CCP of choice to be included in netting.

##### 6.1.2.2. Non CCP Eligible Markets

Where a market is not currently supported by any CCP, for example Japan, a broker pair will have the option to either;

- Have the matched trades netted via the vendor bilateral netting engine

- Instruct the trades one for one: either by the vendor where a POA agreement exists, or by the broker in house system

See section 6.5 for detailed requirements.

### 6.1.2.3. Excluded from CCP Netting Markets

Where a broker pair has determined a market as 'excluded' from the CCP netting process the matched trades should be instructed one for one; either by the vendor where a POA agreement exists, or by the broker.

See section 6.5 for detailed requirements.

### 6.1.3. Securities

It is assumed that the securities currently supported by each CCP for the on exchange flow will also be supported for the OTC flow.

The broker will be unaware of whether a security is eligible at their CCP of choice when they execute the trade. Therefore, upon receipt of the trade executions, either the vendor should determine whether the securities are eligible at the CCP of choice or the trades should be passed to the CCP who will reject any trades received for excluded securities.

Note: It is the broker community's preference that the broker should not be required to put in place preventative measures; the vendor should be able to identify the eligibility of a security and only pass CCP eligible trades to the CCP. However if this is not possible, the fall back should be that the CCP reject the trades.

It is assumed that all issues currently preventing ETF's from being interoperable will be resolved by the time netting OTC transactions via a CCP is implemented. If, however, ETF's remain excluded from interoperability the vendor should provide brokers the option to have matched ETF transactions passed to a CCP of choice which has been agreed by both brokers.

### 6.1.4. Trade Type

The following trade types should be eligible for netting at a CCP:

- Executing Broker versus Executing Broker trades
- Executing Broker versus Prime Broker trades
- Equity Trades
- Fixed Income Trades
- Delivery versus Payment Trades

It is assumed that Free of payment and Cross currency executions (where a free of payment instruction is generated) will be excluded from CCP netting as these trade types are currently not supported for the on exchange flow. Therefore the vendor should ensure that all free of payment and cross currency trades are prevented from being passed to the CCP.

Whilst both the vendor and each CCP should be able to process the above mentioned trade types, it may be possible that a broker pair will require certain trades to be prevented from being netted by a CCP. For example, a broker pair may only require executing broker versus executing broker executions to be netted, therefore executing broker versus prime broker executions will need to be prevented from being passed to the CCP.

### 6.1.5. Matching Status

All trades successfully 'matched' within the matching engine will be passed to the CCP (as selected by the broker pair) immediately after becoming matched. See section 6.2 for detailed requirements for status updates to be returned upon a trade being passed to the CCP.

Trades which remain in the following status should be prevented from being passed to the CCP to be netted:

- Unmatched

- Mismatched
- Alleged
- Rejected

## 6.2. CCP Trade Statuses

The matching engine will be required to support the following new status updates necessary for CCP netting:

- 'Sent to CCP'
- 'Accepted by CCP'
- 'Rejected by CCP'
- 'Cancel Sent to CCP'
- 'Cancel Accepted by CCP'
- 'Missed CCP Cut Off'
- 'Not Eligible for CCP'

Note: All vendors should adhere to the above status update naming standard. This will ensure brokers are not required to build a naming convention look up table if consuming status updates from multiple vendors all with different status identifiers.

It should be possible for each broker to opt to (or not to) receive these status updates, and also select the messaging format and method of communication they wish to receive these updates. Some brokers require additional or specific data to be included on a status update. Therefore, the vendor should allow each broker the flexibility to determine the data requirements for each status update.

All status updates will be returned to brokers real time and the audit history within the GUI updated accordingly upon the vendor or the CCP carrying out an action on the trade pair.

### 6.2.1. Sent to CCP Status Update

Upon two trades becoming successfully matched, the matching platform will immediately pass the executions onto the brokers CCP of choice to be included in the next netting cycle. At this point, the matching engine will inform each broker (if required) that the trades have been sent to the CCP in the form of a status update. (See section 6.4.1.1 for detailed workflow).

The matching engine will also be required to return this status update for cancellations of matched and netted trades received prior to the final netting cycle, where the matching engine will pass a contra trade (reversal of the original matched trade) to the CCP. (See section 6.4.3.3.2 for detailed requirements around the contra process).

The status update should include a status qualifier indicating the trade has been 'Sent to CCP'.

### 6.2.2. Accepted by CCP Status Update

Upon the trades being received and successfully validated by the CCP, the matching platform will be required to inform each broker (if required) that the trades have been accepted by the CCP in the form of a status update. (See section 6.4.1.1 for detailed workflow).

This status update will also be required to be returned to brokers upon a contra trade (created for an agreed cancellation of a matched and netted trade post the first net cycle / pre the last net cycle) being accepted by the CCP.

The status update should include a status qualifier indicating the trade has been 'Accepted by the CCP'.

## 6.2.3. Rejected by CCP Status Update

If the CCP receives trades from the matching engine for an unsupported market or security, or for a broker who is not subscribed to the service, the trades will be rejected. This rejection will be passed onto each broker (if required) in the format of a status update. (See section [6.4.1.2](#) for detailed workflow).

The status update should include a status qualifier indicating that the trade has been 'Rejected by CCP' and should include the reason for why the trade was rejected by the CCP. It is expected that the ISO 15022 standard reason codes will be used to convey the reason for rejection.

It is possible that a CCP may reject a trade while a set up issue is being resolved, i.e. set up of a new security is required. Therefore, upon the issue being rectified, the vendor or the CCP should look to re-process the rejected trades to be included in netting. In this scenario, the vendor will be required to ensure a rejection status update is not passed to the Broker.

## 6.2.4. Cancel Sent to CCP Status Update

Prior to the CCP initiating the first net cycle, it should be possible for a broker to cancel a trade which is matched and earmarked for netting.

Following a cancellation being accepted and processed within the matching engine (both parties must agree to the cancellation) the vendor will pass the cancellation to the CCP. At this point the matching engine will also inform each broker that the cancellation has been sent to the CCP in the form of a status update. (See section [6.4.1.3](#) for detailed workflow).

The status update should include a status qualifier indicating the cancellation trade has been 'Cancel Sent to CCP'.

## 6.2.5. Cancel Accepted by CCP Status Update

Upon a cancellation being received and successfully validated by the CCP, the matching platform will be required to inform each broker (if required) that the cancellation has been accepted by the CCP in the form of a status update. (See section [6.4.1.3](#) for detailed workflow).

The status update should include a status qualifier indicating the cancel has been 'Cancel Accepted by CCP'.

By the CCP accepting the cancellation, this will indicate that the trades are no longer earmarked for netting.

## 6.2.6. Missed CCP Cut off Status Update

Following the initiation of the final netting cycle, if any trades remaining in the matching engine are not matched (unmatched, mismatched, alleged), the matching engine will be required to inform brokers (those who have opted to receive an update) that the trades are no longer eligible for netting, as they have missed the cut off time for the trades to be matched and therefore passed to the CCP. (See section [6.4.5](#) for detailed workflow).

This update will be required to include a status qualifier indicating the trade has been 'Missed CCP Cut Off'.

Subsequently, if a trade becomes matched, the trades should be prevented from being sent to the CCP and the brokers informed that the trades have missed the cut off for trades to be passed to the CCP to be netted.

## 6.2.7. Not Eligible for CCP Status Update

Where a broker pair has opted to exclude trades (due to trade type, market or security) from being passed to the CCP, the vendor should confirm that these trades are not eligible to be netted via the CCP and have therefore been prevented from being passed to a CCP in the format of a status update.

This update will be required to include a status qualifier indicating the trade is 'Not Eligible for CCP'.

See section [6.5](#) for detailed workflow.

## 6.3. CCP Net Trade Creation

This document assumes that each CCP will have the ability to net together OTC and on exchange transactions.

It should be possible for each broker to agree with their CCP of choice if they require OTC transactions to be netted with on exchange transactions; creating a single net, or if they require OTC transactions to be netted separately to on exchange transactions; creating two nets (one for OTC and one for on exchange). It should be possible for each broker to agree this at a market (PSET) level.

### 6.3.1. Netting Calculation

It is assumed that each CCP will net OTC transactions for each broker following the same rules and criteria, including which netting algorithm (ie Total Net, Total net with rollback or aggregation), that are in place for the netting of the on exchange flow.

Note: Each CCP is yet to confirm how prime broker executions will be netted across segregated accounts. It is possible that a change to the netting criteria may be required to ensure successful netting for prime broker transactions.

For Executing Broker vs Prime Broker executions the CCP's will need to include safekeeping account as an additional netting field.

Where each broker of a broker pair has opted to net via different CCP's, each CCP will need to ensure that they have the same population of trades from the vendor when calculating the nets; ensuring CCP's are able to settle against one another.

All CCP's should net together all matched trades they have received, irrelevant of the number of matched pairs received; if only one matched pair trade is received, a net should still be created.

### 6.3.2. Netting Cycles

The CCP will be required to support two end of day netting cycles for a particular trade date.

In addition, the CCP should offer brokers an optional cycle on the morning of T+1, whereby the end of day net on T will be re-calculated to include any additional OTC trades received since the first cycle was completed. It should be possible for each broker to determine whether they will opt to utilise this additional cycle or not.

The below is an example of the cycles the CCP will be required to support:

Lifecycle	Netting Cycle	Time of netting cycle
T	Netting Cycle 1	17:00*
T+1	Re-Calculate Cycle 1	09:00*
T+1	Netting Cycle 2	17:00*

*\*Timings throughout this document are in GMT which has been used for documentation purposes only.*

It is assumed that the time at which each CCP should initiate netting for the end of day cycles will be determined by the current timings they follow for the on exchange flow.

However, it should be possible, if required, that the broker community can request this timing be changed; currently some brokers are unable to book their trades and therefore pass them to the matching engine until after the CCP netting initiation time. Allowing the brokers to modify the timing would allow brokers include more trades in a net.

It is expected that the CCP will confirm the time at which the T net will be re-calculated on the morning of T+1 during the functional analysis stage.

No further cycles will be required post the final netting cycle on T+1. Therefore no broker should be allowed to request an ad-hoc netting cycle to be initiated.

## 6.3.3. Communication of Net Trades to Brokers

Upon the completion of a netting cycle, each CCP will return a net trade report of all of the calculated nets for that day (for a particular trade date) to every broker; as per the current on exchange process.

The net trade reports will be returned in the same format as they currently are for the on exchange flow at end of day following the completion of a netting cycle (ie direct to the broker if the broker is a GCM, or via a GCM if the broker is an NCM etc) . Additionally, the net trade report should also contain the unique reference applied to each net by the CCP.

Depending on the capability of a CCP, the broker should be able to determine whether OTC transactions should be returned in a separate net trade report to the on exchange business, or within one report. (This requirement is expected to be confirmed with each CCP during the functional analysis stage).

### 6.3.3.1. Gross Trade Report

In addition to the net trade report, CCP's also currently offer brokers the option to subscribe to a service which provides details of all executions they have received that day. Therefore, each CCP should ensure that this service is available for OTC transactions.

#### 6.3.3.1.1. Gross Trade Report Referencing

Upon receipt of the gross trade report, the broker may look to reconcile the gross executions they hold in house versus the executions the CCP have alleged to have received from the matching platform. In order to complete this reconciliation, the broker will look to tie the two together. Therefore a reference should be used to assist with the process. Unlike the exchange flow, where an exchange reference is used to link the two together, OTC transactions do not have a specific reference applied to them when executed. Therefore it is proposed that the unique trade reference applied by the broker to each transaction be used. The vendor should ensure that when the trades are passed to the CCP, this reference is included in the transaction details. The CCP should then ensure that this reference is quoted when generating the gross trade report. Thus when the broker receives the gross trade report, all trades quoted should be successfully linked to the original execution by the reference id.

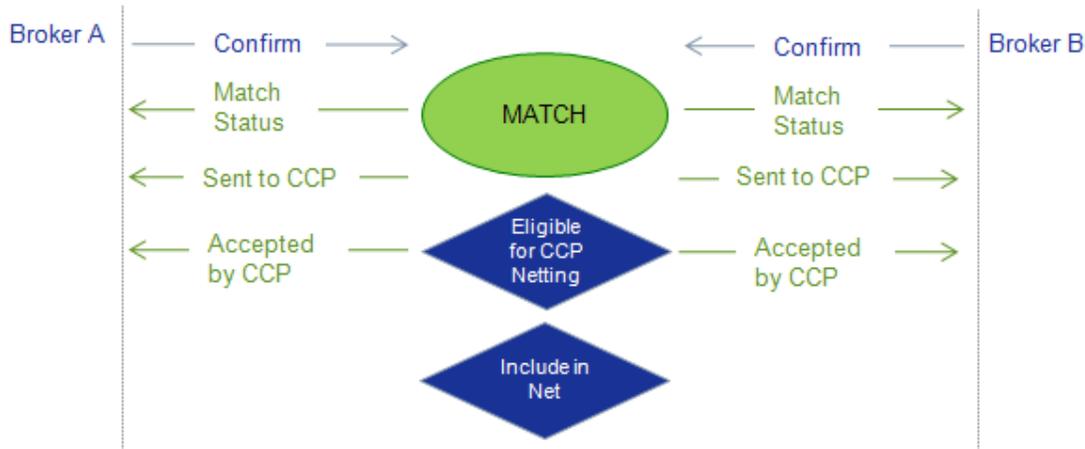
In addition, the CCP will also be required to ensure that the gross trade report quotes the correct net reference against the associated gross trade executions making up the net. This will ensure brokers are able to reconcile the net trade with the gross executions which have created it.

## 6.4. CCP Netting Workflows

Note: The following section documents the workflows required for the two standard netting cycles; T and T+1. No additional workflows are required for the additional cycle on T+1 to re-calculate the end of day net created on T; the workflows for processing trades between cycle one and two (documented in sections 6.4.3 and 6.4.4) should be followed for this additional cycle.

## 6.4.1. Pre First Netting Cycle (EOD on T)

### 6.4.1.1. Eligible Matched Trades Passed to the CCP : Status Update



Upon a pair of broker trades becoming successfully matched, the matching engine will immediately pass the trades to the CCP and will return a 'Sent to CCP' status update to those brokers who have opted to receive this status.

Within the GUI the trades should be displayed within the 'Matched and Sent to CCP' folder.

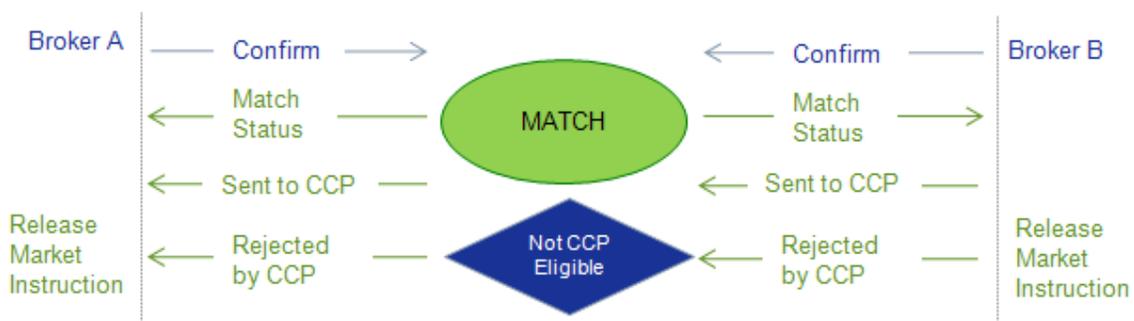
Upon the CCP receiving and accepting the trade pair, an 'Accepted by CCP' status update will be returned by the vendor to those brokers who have opted to receive this status.

Within the GUI the trades should be displayed within the 'Matched and Accepted by CCP' folder.

Both status updates will be returned to brokers real time.

The matched trades will be pending inclusion in the first CCP netting cycle.

### 6.4.1.2. Trades Rejected by the CCP: Status Update



Upon the CCP receiving trades from the matching engine for an unsupported market or security, or for a broker who is not subscribed to the service, the trades will be rejected.

Within the GUI the trades should be displayed within the 'Matched and Rejected by CCP' folder.

The 'Rejected by CCP' status will be returned by the vendor to those brokers who have opted to receive this status.

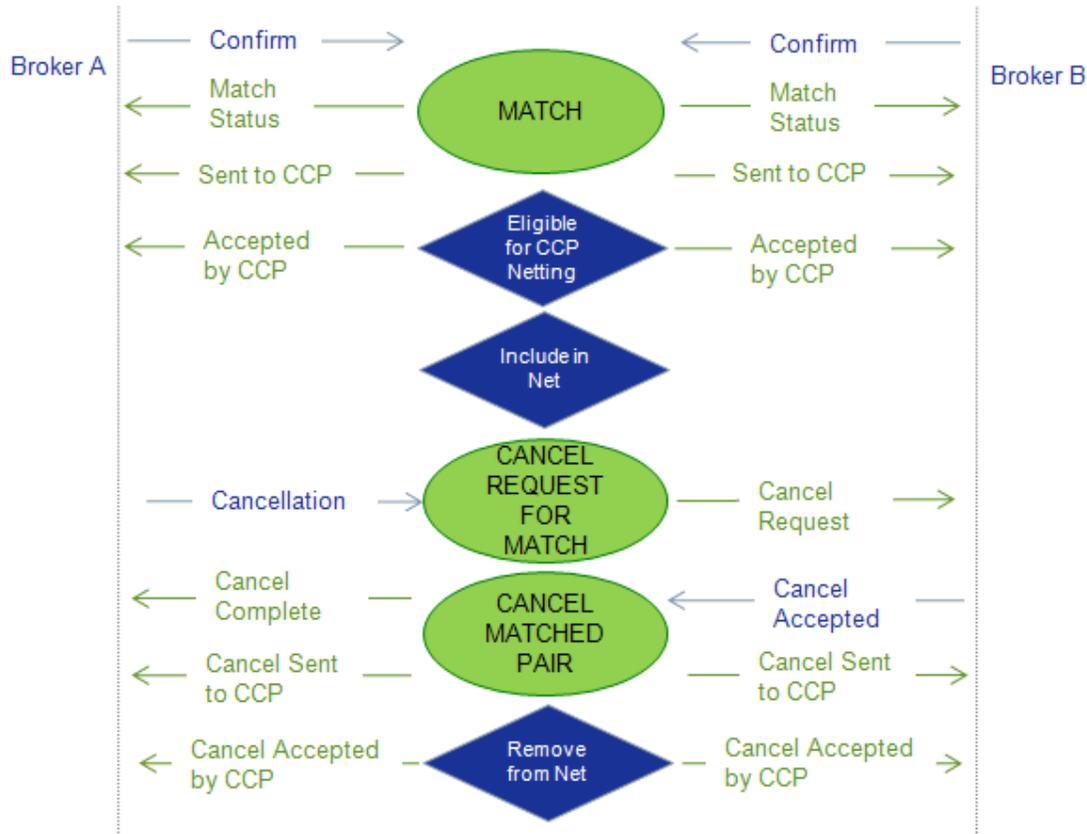
The receipt of this status update should prompt the broker or the vendor (where a POA agreement is in place) to release a settlement instruction to the market; where a POA agreement is in place the vendor should

# afme/Post Trade

release the instruction upon the trade being identified as 'rejected'; where No POA agreement is in place the broker will release the instruction from within their in house system upon receipt of the status update.

## 6.4.1.3. Cancel and Correct Processing

### 6.4.1.3.1. Outright Cancellation of a Matched Trade



It is assumed that the CCP will accept cancellations of trades which have already been sent to and accepted by the CCP, but have not yet been netted, and are therefore not yet locked in.

In order for a cancellation of a matched pair to be processed by the matching engine and then passed to the CCP, a broker pair must both agree to the cancellation; as the trades are earmarked for netting at the CCP.

Upon a cancellation being received from a broker (Broker A) for a matched trade pair which have been sent and accepted by the CCP, the matching engine will be required to generate a request to cancel the trade to the counterparty broker (Broker B) in the form of a status update.

The cancellation request will also be placed in the cancel request folder within the GUI until Broker B actions the request. (The trades will remain in the matched and accepted by CCP folder).

Broker B will be required to accept the cancellation request in order for the cancel to be processed. (See section 6.4.1.3.3 for workflow of a rejected cancellation request).

Broker B will accept the cancellation request by sending the matching platform a consequent cancellation. It should not be possible for the broker to manually accept the cancellation within the GUI.

Upon Broker B accepting the cancellation request, the matching engine will cancel the matched pair and will generate an update to the CCP stating that the trade pair is now cancelled and should therefore be removed from the next netting cycle. As 'Cancel Sent to CCP' status update will be returned to both brokers (if required).

Upon the CCP confirming receipt of the cancellation, the matching engine will return a 'Cancel Accepted by CCP' status update to each broker (if required) to confirm the trades are no longer eligible to be included in the next net.

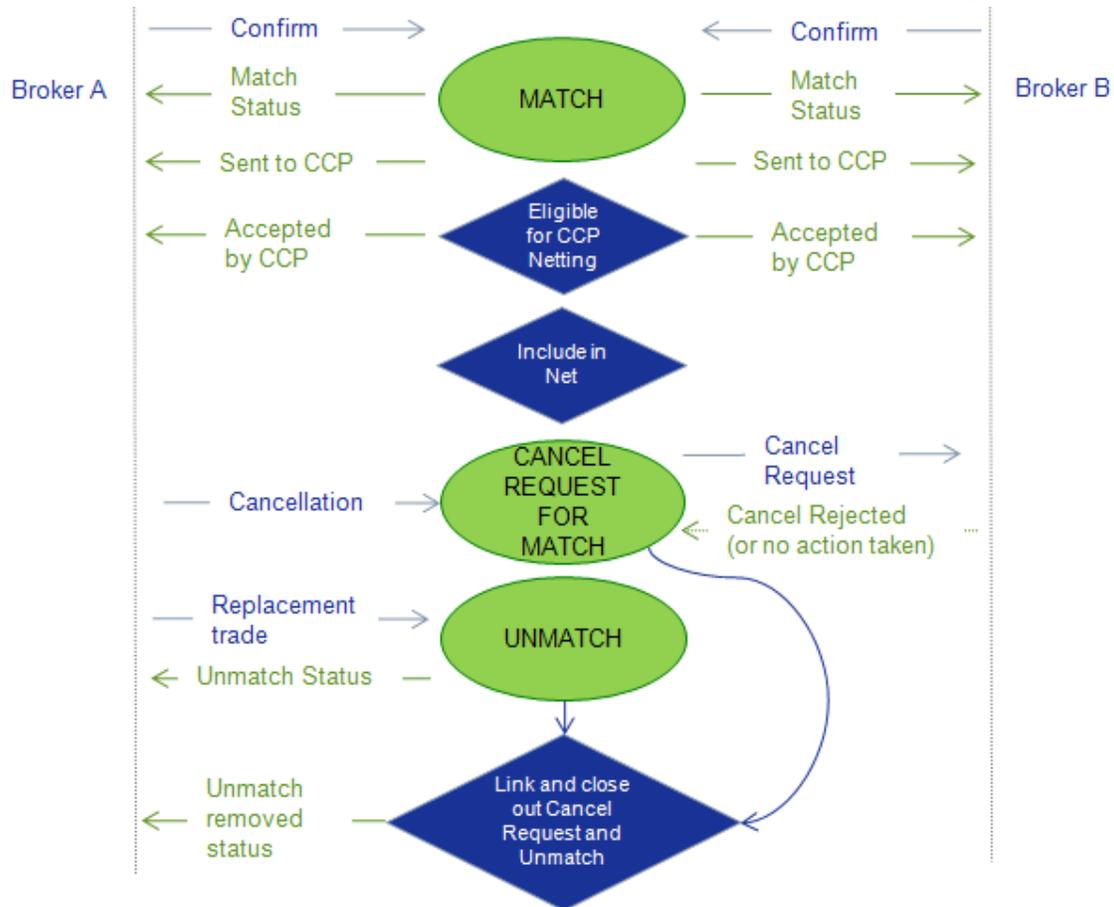
The cancelled trades will be shown in the cancel complete folder of the GUI, having been removed from the matched and accepted by CCP folder, and the cancellation request will have been removed from the cancel request folder.

The audit history of both trades will reflect the activity of the trades with the latest status showing as cancelled and withdrawn from netting.

### 6.4.1.3.2. Cancellation and Replacement of Matched Trade by Both Parties

Upon a broker pair agreeing to cancel and replace a matched and sent to/accepted by CCP trade pair, the matching engine will follow the same process for the cancellation as documented in the previous section, and process the replacement trade as an ordinary matched trade, i.e. pass the matched trade to the CCP to be included in the next netting cycle.

### 6.4.1.3.3. Cancellation and Replace of Matched Trade by One Party (Mistake)



It is likely that a broker (Broker A) could cancel and replace a matched trade by mistake, or the counterparty broker (Broker B) may not agree the cancellation and replacement. As per the requirement for a broker pair to agree a cancellation for a matched and sent to and accepted by the CCP, the matching platform will follow the cancellation request process upon a cancellation being received.

The cancellation request will be placed in the cancel request folder within the GUI until Broker B actions the request. (The trades will remain in the matched and accepted by CCP folder). The replacement trade will be placed in the unmatched folder within the GUI and an 'unmatched' status update returned (as per broker requirements agreed for the matching process).

Broker B may reject the cancellation request; by adding a note to the trade (within the cancel request folder) to say that they reject the cancellation. It is also possible that Broker A may recognise the cancel and replace have been sent in error before Broker B is able to reject the cancellation. Therefore it is proposed that the matching platform has the capability to identify that the two trades are identical and can be paired off against one another and closed out;

- The matching engine could automate this process on behalf of the broker
- The broker could manually link the trades and close them out manually; this would need to be processed at a supervisor and four eyes verification level.

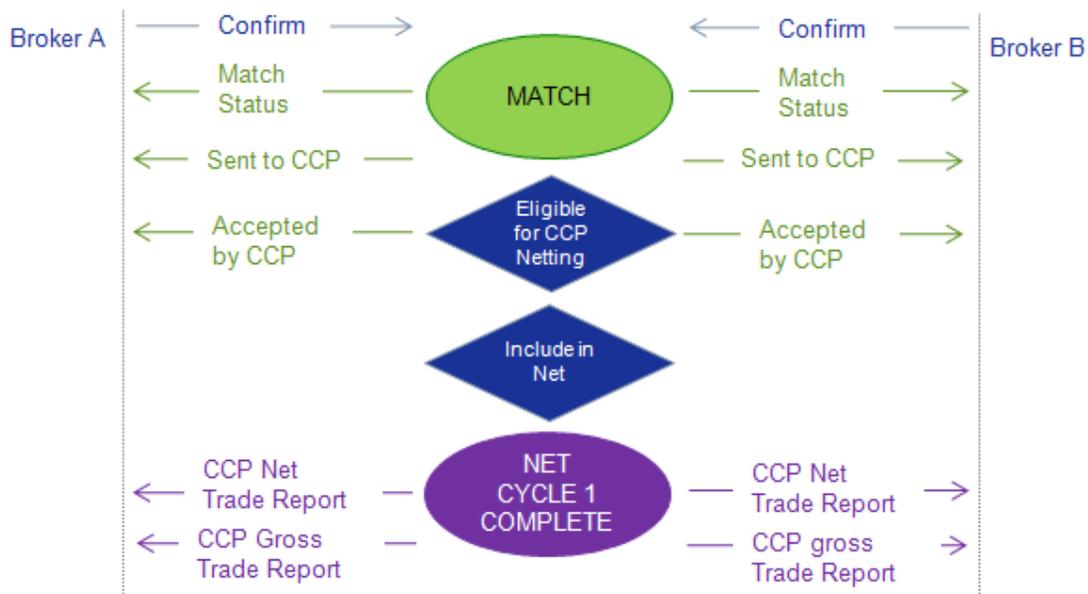
Upon the unmatched trade and the cancellation request being linked and closed out, the vendor should return a status update to the broker (if required) identifying that the unmatched trade has now been closed out.

The original trade pair will remain matched and earmarked for netting at the CCP.

#### 6.4.1.3.4. Cancellation of Trades which are Not Matched.

If a cancellation or replacement trade is received into the matching platform for any trade which is not successfully matched, the matching engine will process the cancellation and replacement accordingly without the need to follow a cancel request and accept process (as the trades are not earmarked for netting). Detailed workflows for these scenarios can be found in sections 4.4.4 and 4.4.5 of the AFME Broker Matching Business Process Requirements Document.

#### 6.4.2. Result of First Netting Cycle (EOD on T)

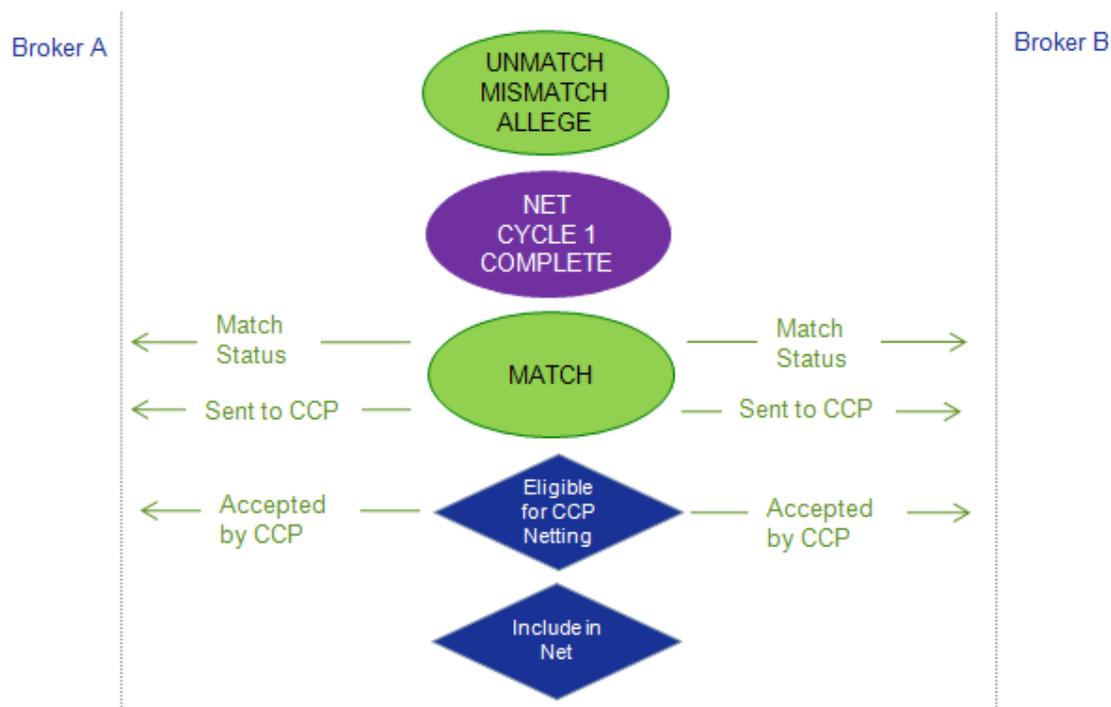


Following the successful completion of the first CCP netting cycle, the gross executions which make up the net will be locked in, the net trade reports will be generated by the CCP and sent to brokers along with the gross trade report.

All gross executions which have been netted by the CCP should be updated to be displayed within the GUI as 'Matched and Netted'.

## 6.4.3. Pre Second Netting Cycle (Final Net Cycle)

### 6.4.3.1. Trades Which Become Matched



Trades which are not matched (unmatched, mismatched or alleged) prior to the first net cycle, but become matched before the second cycle is initiated, will be sent to the CCP to be included in the second net cycle.

The matched trade pair should be removed from the previous GUI view and displayed within the matched and sent to CCP or matched and then the Accepted by CCP folder of the GUI.

### 6.4.3.2. Back-Dated Matched Trades (Late Trades)

If a back-dated (late) trade is received and matched following the completion of the first netting cycle, the trade pair will be sent to the CCP to be included in the second net cycle; being netted with trades with the same netting criteria, i.e. Trade date, Value Date, ISIN, PSET and Currency.

### 6.4.3.3. Cancel and Correct Processing

#### 6.4.3.3.1. Matched Trades Pending Inclusion in Next Net Cycle

The matching platform will follow the same processes as documented in section 6.4.1.3 (Pre Netting), for cancel and corrects received for trades which have become matched post net cycle 1 and are therefore pending inclusion in net cycle 2.

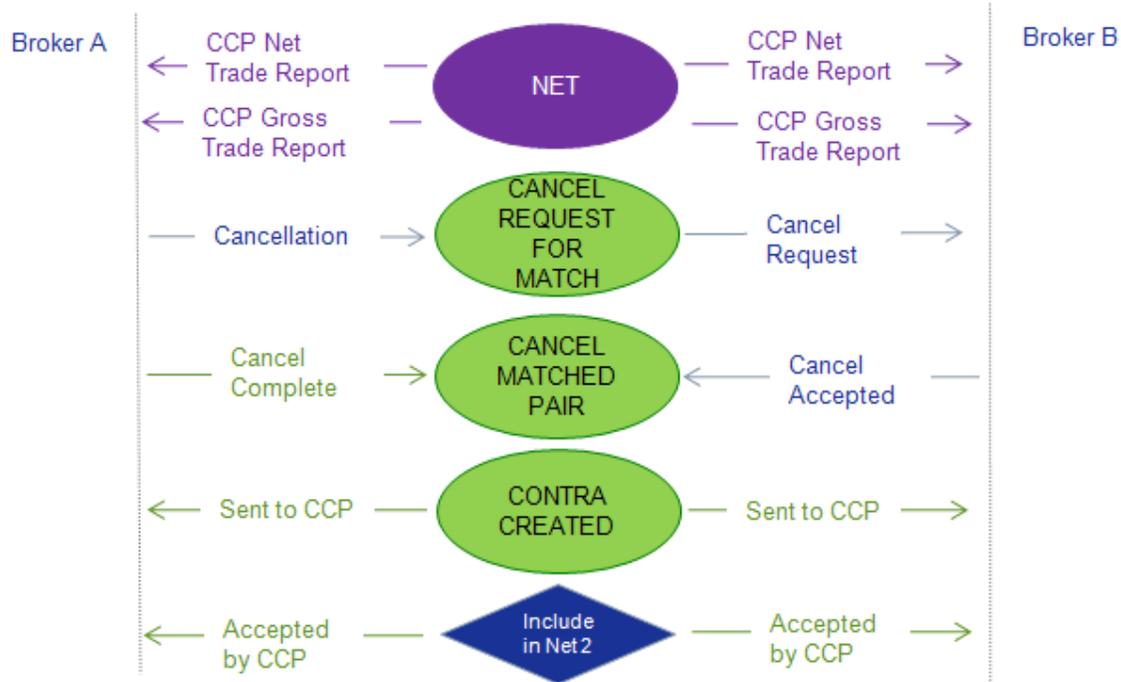
#### 6.4.3.3.2. Matched and Netted Trades (matched and netted in First Net cycle)

Following the completion of the first netting cycle, both the net and the gross executions making up the net will be locked in. Therefore, if a cancel or replacement trade is received into the matching engine for a matched and netted execution additional workflow will be required to reverse the original trade movement.

It is proposed that a contra flow (opposite but equal replacement trade) will provide this functionality.

Note: It is assumed in the following workflows that broker trades have been successfully matched, passed to the CCP and netted, with the necessary status updates be returned where required.

## 6.4.3.3.2.1. Outright Cancellation of a Matched and Netted Trade



Upon a cancellation being received for a matched and netted trade from a broker (Broker A) the matching engine will be required to follow the cancel request and accept process as document in section 6.4.1.3.1, i.e. the matching platform will generate a cancellation request to Broker B which will be accepted and the matched pair will be cancelled.

However, as the gross trades have been netted and are therefore locked in, it will not be possible to remove a gross execution from the net (unlike trade cancelled pre netting). Consequently, a contra trade (opposite but equal replacement trade) will be created either by the broker in-house system, or by the matching engine upon the cancel request being accepted by both brokers.\*

Note: Brokers will be required to confirm if they will create their own contra trades, or if the vendor should create the contra on their behalf. This will be determined during the on-boarding process and will be held in the broker preference static data tables.

The contra trades will be 'matched' and passed to the CCP. The matching engine will generate a 'Sent to CCP' status to be returned to the brokers (if required) and display the trades in the matched and sent to CCP folder within the GUI.

Upon the CCP receiving and validating the contra trades, the matching engine will return an 'Accepted by CCP' status update to the brokers (if required) and will display the contra in the matched and accepted by CCP folder within the GUI.

The CCP will earmark the contra trade for the next netting cycle as per any other matched transaction; the contra will act as the reversal of the original trade.

\*Note: Upon a vendor contra trade being created, the matching platform will be required to apply the trade reference of the original gross execution to the contra trade. Any status updates sent to the broker(s) for the contra trade, i.e. sent to CCP, should include this reference, therefore allowing Brokers to link the incoming statuses to the original execution.

## 6.4.3.3.2. Cancellation and Replacement of Matched and Netted Trade by Both Parties

Upon a broker pair agreeing to cancel and replace a matched and netted gross execution, the matching engine/CCP will follow the same process for the cancellation as document in the previous section (6.4.3.3.2.1), and process the replacement trade as an ordinary matched trade, i.e. pass the matched trade to the CCP to be included in the second cycle.

## 6.4.3.3.3. Cancellation and Replacement of Matched and Netted Trade by One Party (Mistake)

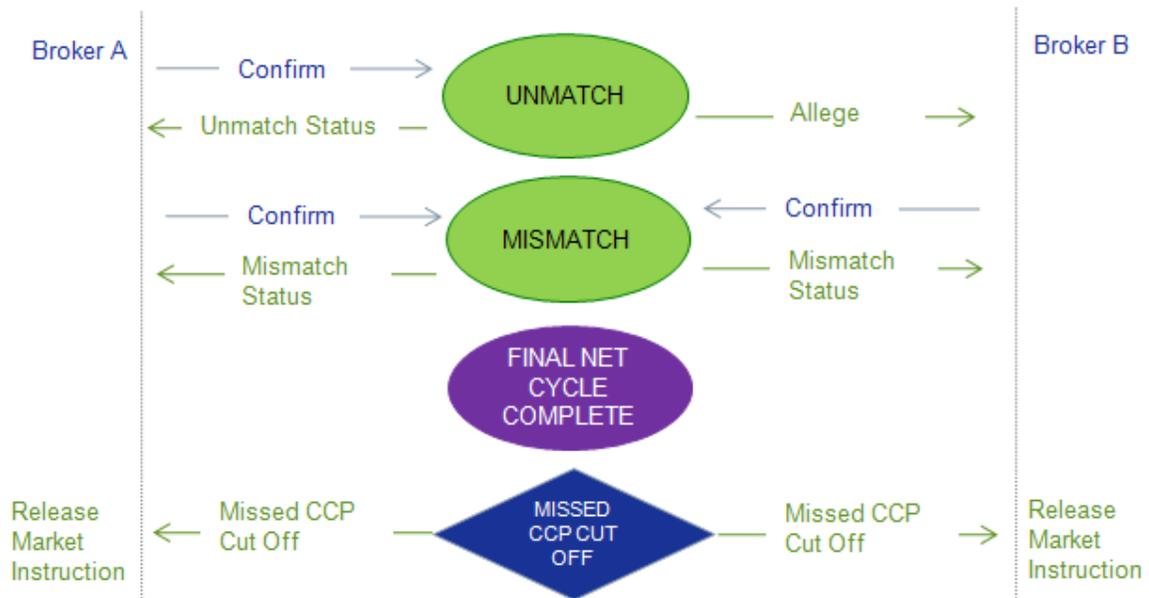
If a cancellation and replacement trade is received for a matched and netted trade from a broker (Broker A), the matching platform will follow the same process as documented in section 6.4.1.3.3 (cancellation and replacement of a matched trade pre netting).

## 6.4.4. Result of Second Net Cycle (Final Net Cycle EOD on T+1)

Following the completion of the second netting cycle, the CCP will create net trade reports and generate the subsequent gross trade reports for all gross executions, as per the flow documented in section 6.4.2.

## 6.4.5. Post Second Net Cycle (Final Net Cycle)

### 6.4.5.1. Unmatched Trades Post Final Net Cycle



Trades which are eligible for netting, but are 'not matched' (unmatched, alleged, mismatched) at the time of the final CCP netting cycle being initiated, the matching platform will inform brokers that they have missed the cut off time to be matched, and are therefore no longer eligible for netting. (The matching engine will have received an update from the CCP confirming the final cycle has been initiated and therefore trades can no longer be netted for a particular trade date).

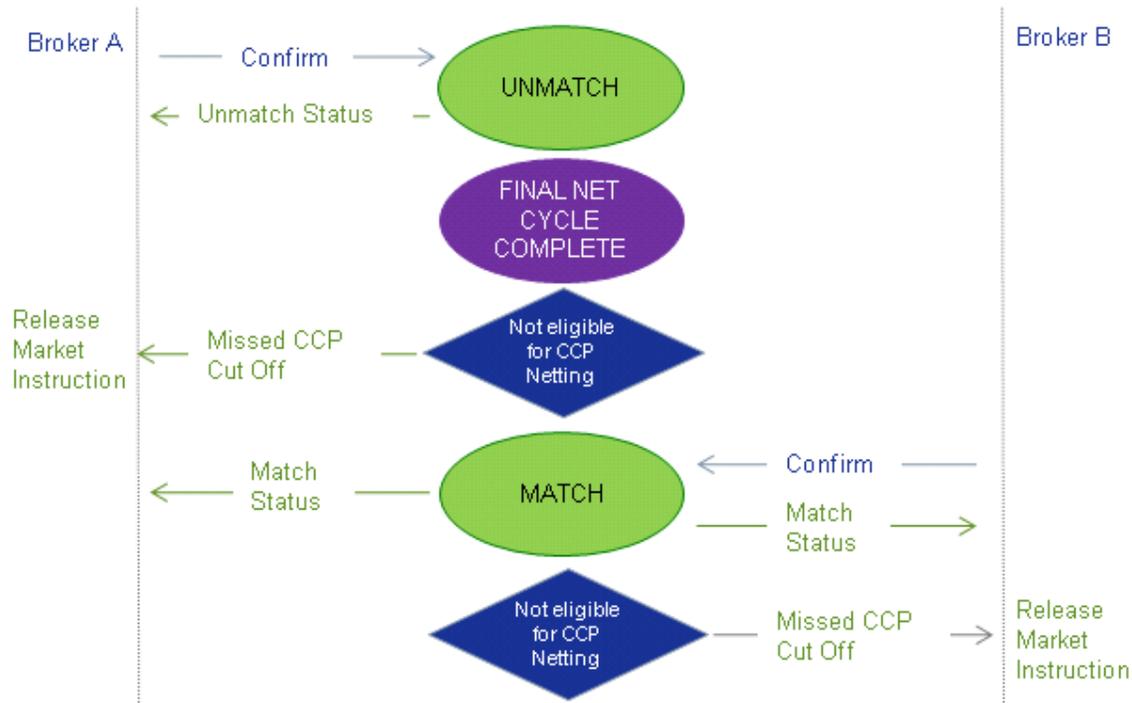
These trades should be prevented from being passed to the CCP.

The matching engine will return the 'Missed CCP Cut Off' status update(s) to each broker (if required) confirming that their trade was not eligible for netting:

- For trades which were previously unmatched, the matching engine will only return status updates to the originating broker
- For trades which were previously mismatched, the matching engine will return status updates to the both the originating broker and counterparty broker.

The matching platform should also display the trades in the 'Missed CCP Cut Off' folder within the GUI. The receipt of this status update should prompt the broker or the vendor (where a POA agreement is in place) to release a settlement instruction to the market; where a POA agreement is in place the vendor should release the instruction upon the trade being identified as 'Missed CCP Cut Off; where No POA agreement is in place the broker will release the instruction from within their in house system upon receipt of the status update.

## 6.4.5.2. Trades Become Matched Post the Final Net Cycle



Following the release of the 'Missed CCP Cut Off' status update to broker A for trades which are unmatched (and therefore the release of the market instruction by the broker) if a subsequent matching trade is received, the matching engine should;

- Identify that the unmatched trade is now Matched, setting the status to matched within the GUI.
- Return a 'match' status update to Broker A.
- The matching engine should not return any further 'Missed CCP Cut Off' status updates to Broker A; this was released previously for the original unmatched trade.
- The matching engine should return a 'Missed CCP Cut Off' status update to Broker B for their newly matched trade.

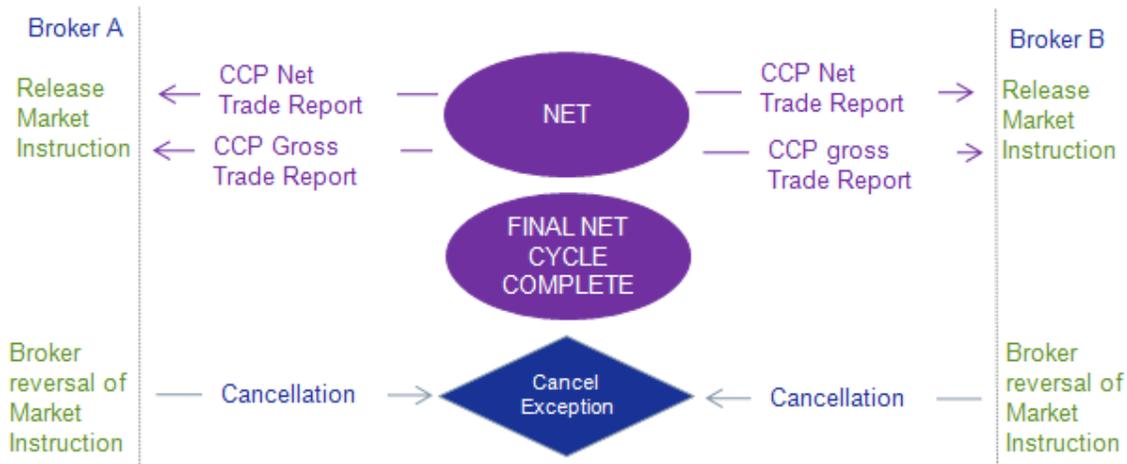
## 6.4.5.3. Late Trades Received Post Final Net Cycle

If a broker pair books trades post the final net cycle, i.e. with a back-dated trade date, the matching engine will process these trades in the same way as those trades matched post the final netting cycle (documented in the previous section).

## 6.4.5.4. Cancel and Correct Processing Post Final Net Cycle

### 6.4.5.4.1. Matched and Netted Trades

#### 6.4.5.4.1.1. Outright Cancellation of Matched and Netted Trade Post Final Net Cycle



Following the completion of the final netting cycle, if a cancellation is received for a gross execution which has been included in a net, it should not be possible for the cancellation to be processed. Either the broker will need to prevent the cancellation from being passed to the vendor, or if the cancellation cannot be prevented, the vendor should mark it as a 'cancellation exception' within the GUI.

Note: The 'cancellation exception' should only highlight that a broker is attempting to cancel a matched and netted execution. Brokers should not be required to take any actions within the GUI against this update.

The vendor should also return a 'Cancel Request' status update to the counterparty broker (if required); allowing the broker to be informed of the proposed cancellation.

Where both brokers agree the cancellation of the matched and netted execution, the CCP obligation will still remain, however the cancellation will be processed bilaterally; both brokers instructing a reversal in the market.

#### 6.4.5.4.1.2. Cancellation and Replacement by Both Parties of Netted Trade Post Final Net Cycle

If two brokers agree to cancel and replace a trade which has been netted post the final netting cycle, the matching engine will process these trades in the following way:

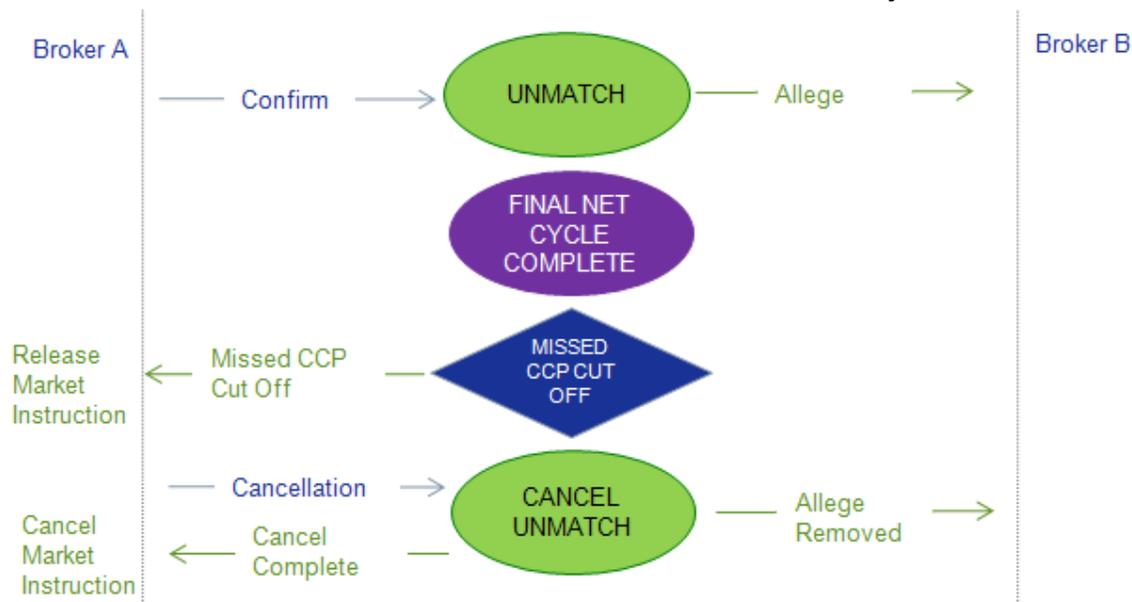
- Cancellation: will be processed in the same way as documented in section [6.4.5.4.1.1](#)
- Replacement Trade: will be processed in the same way as a late trade being received and matched, as documented in section [6.4.5.2](#).

#### 6.4.5.4.1.3. Cancellation and Replacement of Matched and Netted Trade by One Party (Mistake) Post Final Net cycle

If a cancellation and replacement trade is received for a matched and netted trade (post the final netting cycle) from a broker (Broker A), the matching platform will follow the same process as documented in section [6.4.1.3.3](#) (cancellation and replacement of a matched trade pre netting).

## 6.4.5.4.2. Trades Which Are Not Matched

### 6.4.5.4.2.1. Cancellation of Trades Not Matched Post Final Net Cycle



(The above diagram is an example of an unmatched trade. Mismatched trades will be processed in the same way).

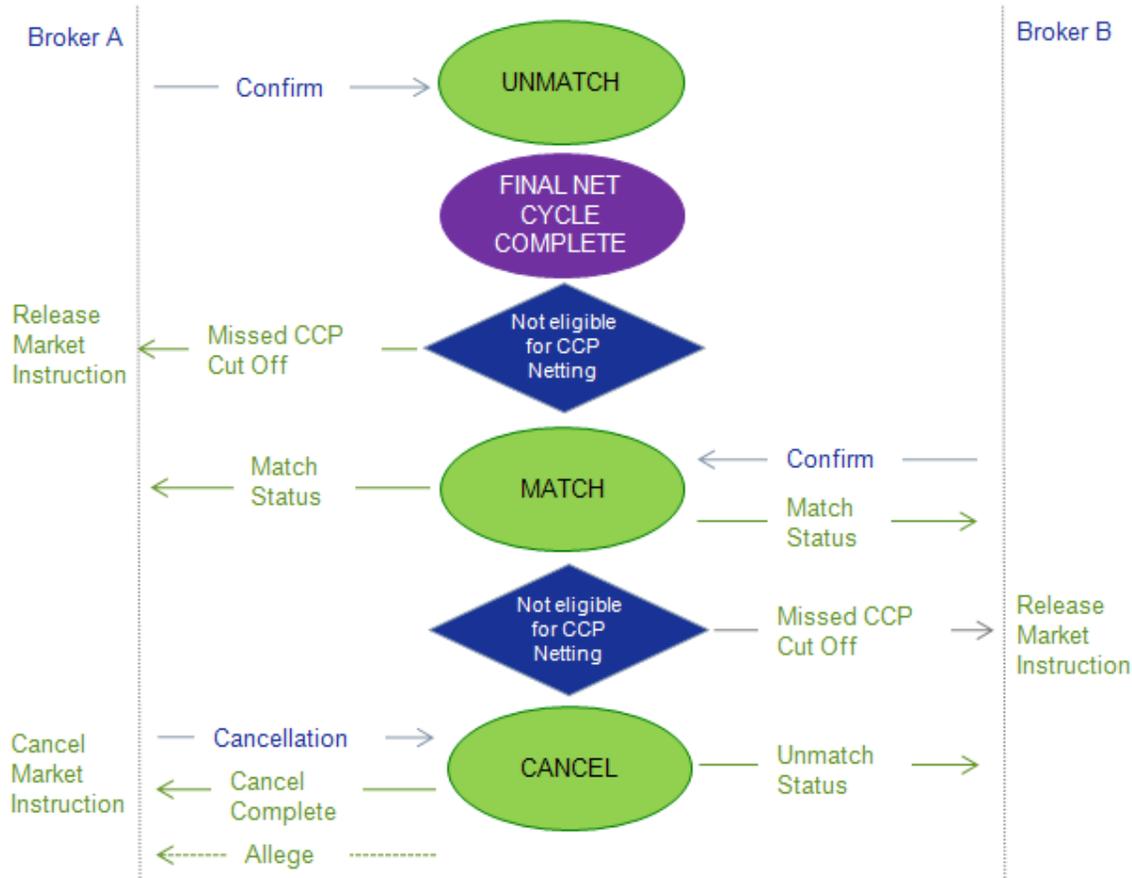
As per the flow documented in section 6.4.5.1, the matching engine will release a 'Missed CCP Cut Off' status to brokers for any trades which remain unmatched after the final netting cycle.

If the originating broker (Broker A) sends a cancellation for their unmatched trade, the matching engine will automatically cancel the unmatched trade; no cancellation request will be required as there is no corresponding trade and the trade has not been netted.

The matching engine will notify the broker that the trade has been successfully cancelled by returning a 'Cancel complete' status update. Upon the cancellation being successfully processed within their in house system, the broker will generate a cancellation of the market instruction where no POA agreement exists. Where a POA agreement is in place, the vendor will generate a cancellation market instruction.

(In this scenario, the allege generated for the unmatched trade will be removed from the view of the counterparty broker, and an allege removal status may be sent if required by the broker. In the mismatch scenario, the corresponding trade will be set to unmatched and the counterparty broker will receive an unmatched status trade. The matching engine will not send a 'not eligible for netting' status for the unmatched trade as it would have generated this status for the original unmatched trade after the final netting cycle).

## 6.4.5.4.2.2. Cancellation of Trades Which Become Matched Post Final Net Cycle



Following the release of the 'Missed CCP Cut Off status update to broker A for trades which are unmatched (and therefore the release of the market instruction by the broker) if a subsequent matching trade is received, the matching engine should follow the flow document in section 6.4.5.2.

If Broker A subsequently sends in a cancellation for their trade, the matching engine will be required to:

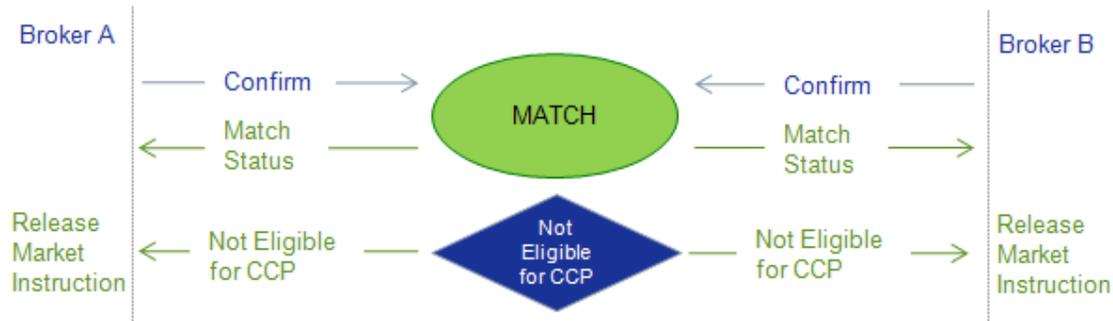
- Immediately cancel the trade of Broker A; no agreement will be required between brokers to allow Broker A to cancel their trade.
- Generate a 'cancel complete' status to Broker A, which will generate the cancellation of the market instruction  
If the vendor has been granted POA for both brokers, the vendor should only release the cancellation instruction for Broker A. Broker B's instruction will remain un-impacted.
- Set Broker B's trade to unmatched and generate an unmatch status message. No further 'Missed CCP Cut Off' status should be returned to Broker B as they have not cancelled their trade.

## 6.5. Non CCP trades

Where a trade is deemed as non CCP eligible; market is not supported by the CCP or a broker pair has agreed to exclude a market from netting, the matching platform will be required to identify these trades as not eligible for CCP netting.

All non CCP eligible trades will be instructed bilaterally; one for one.

Where a CCP does not support a market (not where the broker pair have excluded the market however), brokers will have the option to have their matched transactions netted bilaterally via the vendor netting engine. The AFME Broker Bilateral Netting via a Vendor document details these requirements (See Appendix).



The matching engine will prevent the trades from being passed onto the CCP.

The matching engine will return a 'Not Eligible for CCP' status (where required) to each broker.

Where a POA agreement is in place the matching engine will immediately release a market instruction for each trade upon identifying the trades as non CCP eligible. Where no POA agreement is in place the broker will release the instruction from within their in house system upon receipt of the status update.

The matched pair will be displayed within the 'Matched Not Eligible for CCP' folder of the GUI but the audit history of each trade should include an update to confirm the trades are not eligible for CCP Netting.

Note: Non eligible CCP trades which remain unmatched or have been cancelled and corrected, the vendor should follow the same process as the OTC Matching model.

## 6.6. Settlement Processing

Brokers will have suppressed the release of settlement instructions to the market for gross executions.

### 6.6.1. CCP Netted Trades

For trades which are eligible for netting, the settlement instruction will be released to the market upon the creation of the net. As per the current processes in place for the on exchange flow today, either the CCP will instruct the market where a POA agreement is in place, or where no POA agreement exists the broker will be required to instruct the market.

#### 6.6.1.1. CCP POA Release of Settlement Instruction

The CCP will be required to follow the same POA agreements that are in place for the on exchange flow today.

Note: It should be possible for a broker to set up a new POA agreement with a CCP if the agreement does not exist today for the on exchange flow.

#### 6.6.1.2. Broker Release of Settlement Instruction

The Broker will be required to follow the same process as they do today for markets where no POA agreement is in place with the CCP.

### 6.6.2. Non CCP Netted Trades

For trades which have missed the cut off deadline for matching and therefore netting, or have been rejected by the CCP or were not eligible to be passed to the CCP, the market instruction will be released to the market upon the trigger of one of the following status updates: 'Missed CCP Cut Off', 'Rejected by CCP' or 'Not Eligible for CCP'.

Brokers will have the option to release settlement instructions to the market in one of two ways:

- Allow the vendor POA to release settlement instructions to the market on behalf of the broker; the vendor will follow the same process as is in place for instructing matched transaction for a broker

who is not subscribed to the netting service as described in the AFME Broker Matching Business Process Requirements Document (See Appendix).

- Do not allow the vendor POA, and release settlement instructions from the broker in house system; as per the current process today to instruct a matched transaction.

## 6.7. Broker Reconciliation

The reconciliation process in place for the on exchange flow today between each Broker and the CCP should be utilised for the netting of OTC transactions; gross trade reports and net trade reports.

Each broker will be required to confirm with the CCP whether they require to receive these reports.

## 6.8. GUI Requirements

It is assumed that the 'Matching and Affirmation' GUI requirements have been agreed and the following are additional requirements for the netting via CCP functionality.

### 6.8.1. Manual Actions

The vendor will be required to ensure that all matched trades, regardless of whether they are CCP eligible or not cannot be manually cancelled within the GUI. This should be prevented by the user profile capability. Therefore, if a user has a profile which allows them to cancel or verify a cancellation, the profile should ensure this is restricted to unmatched trades only.

### 6.8.2. Static Data

#### 6.8.2.1. Broker Static Data

In order for a broker pair to utilising the CCP netting functionality they will be required to complete the necessary on boarding process which should include:

- Both brokers are subscribed to CCP netting service
- Broker Pair combinations
  - Markets eligible for CCP Netting
  - Markets excluded from CCP Netting (outside of markets not supported by the CCP's)
  - Trade Types eligible / not eligible for CCP Netting

Following the completion of the on boarding process, it should be possible for a broker pair to update/change their netting requirements, for example removing or including a PSET. Upon a change being made, both brokers will be required to agree the change and also state the time at which it should take effect.

Individually, each broker will also be required to;

- Subscribe to CCP Netting service
- Confirm Broker CCP ID
- Confirm CCP of choice at market (PSET) level
- Confirm the CCP status updates they wish to receive, when and in which format, including any specific data requirements
- Confirm netting cycles to be utilised
- For non CCP eligible trades confirm if the vendor will have POA to release market instructions, and if so, in which markets and what the SSI's should be used or if the vendor should bilaterally net the trades.
- Provide agency/principal indicator to be stored in the static data tables (if required by CCP's).

#### 6.8.2.2. Matching Fields

The following fields will be required to be included as additional matching criteria within the static data tables to enable brokers to utilise the CCP netting functionality and complete the on boarding process;

- Payment Method
- PSET

- Additional fields may be required by the CCP to create nets; this data will be confirmed at the functional analysis stage.

The above, additional fields, will be mandatory for a broker pair to match against if opting to utilise the CCP netting functionality.

### 6.8.2.3. CCP Preference

The vendor should hold a table which maps the following:

- Broker Pair
- Market
  - The table should contain a list of all possible markets supported by all of the CCP's
- Eligibility
  - The table should default the market to eligible / not eligible based on CCP.
  - A broker pair should be able to change an eligible market to not eligible. However it should not be possible vice versa.
- Preferred CCP per Broker
  - The table should contain a list of CCP's which support a particular market.

In order for a broker pair to utilise the CCP netting functionality this information will be required to be supplied during the on boarding process.

This data should be maintained by the broker pair. If any changes are required both brokers will be required to agree and accept the changes via the GUI.

### 6.8.2.4. Trade Types

The vendor should hold a table which maps the following:

- Broker Pair Combination
- Trade Types
  - Executing Broker versus Executing Broker trades
  - Executing Broker versus Prime Broker trades
  - Equity Trades
  - Fixed Income Trades
  - Delivery versus Payment Trades
  - Cross Currency Trades
- Eligibility

In order for a broker pair to utilise the CCP netting functionality this information will be required to be supplied during the on boarding process.

This data should be maintained by the broker pair. If any changes are required both brokers will be required to agree and accept the changes via the GUI.

### 6.8.2.5. Agency/Principal Indicator

If confirmed as required by the CCP's, the vendor should provide the ability to hold the agency/principal indicator required by each broker (if a broker is unable to supply the indicator on their trade confirmations).

### 6.8.3. GUI Views / Display

The vendor GUI will require the following additional folders/views:

- Matched and Sent to CCP
- Matched and Accepted by CCP
- Matched and Netted
- Cancel Exception
- Matched Not Eligible for CCP
- Matched Missed CCP Cut Off

## 6.8.4. Other Requirements

### 6.8.4.1. Search Criteria

Where a trade has been successfully netted it should be possible for a broker to search within the GUI on the net reference id; this search should return all of the OTC gross executions which have been included in a net.

## 6.9. Additional Requirements

### 6.9.1. Vendor Requirements

The broker community would like the vendor to offer transaction reporting of the gross executions from within the platform.

Note: Requirements for transaction reporting will not be documented in this business process requirements document. A separate document will be produced by brokers on a bilateral basis, if required.

### 6.9.2. CCP Requirements

The CCP will be required to ensure the following is in place to ensure brokers are able to utilise the OTC netting service:

- Current CCP standard closing hours should be followed.
- Margins will be calculated following the current approach for the on exchange flow.
- Trade reconciliations will be provided, as per the on exchange flow.
- Settlement disciplines, fines and buy in regime should be aligned with the on exchange practises.
- The rulebook will be updated to include OTC transactions.

## 7. MIS Requirements

The vendor will be required to provide brokers MIS either via the GUI or in report format which will be sent to the brokers at an agreed time, for example daily, weekly or monthly.

Whether via the GUI or within a report, the vendor should provide the following:

- Number of trades sent (Total and # per broker)
- Timing of trades being received into the platform
- Number and % of trades, matched, mismatched, unmatched on TD, T+1, T+2 etc across lifecycle (analysed against each broker and against overall volume)
- Number of Trades matched and missed CCP cut off
- Number of Trades matched and not eligible for CCP
- The %age entered by an agreed market standard time
- The %age matched by and agreed market standard time
- The %age of trades sent to SSP on TD and T+1.
- The performance achieved per market (incl %age matches, market averages & compression level)
- What is the market average for each metric and how does each broker compare
- Performance across all metrics by broker / cpty pair
- Root cause analysis data of mismatched, unmatched trades to assist in increasing match rates (Price, TD, Consideration differences etc)
- Ability to query raw data and build ad-hoc reports
- Cancel rate / cancel rebook rate pre and post net
- Metrics of late booked trades by counterparty
- Netting compression rates

## 8. High Level Business Requirements

### 8.1. Business Requirements

Ref #	Requirement Name	Notes	Doc Ref #	Required?
<b>Broker Netting via CCP</b>				
<b>Changes to Trade Matching and Affirmation</b>			<b>5.1</b>	
CN-MA-01	Brokers will include the payment method of their transaction on the incoming trade confirmation.	Payment method should be mandatory for matching.  The vendor will be required to ensure Payment method is a mandatory matching field if a broker pair is subscribed to the CCP netting service.	5.1	Must Have
CN-MA-02	PSET will become a mandatory matching field.	The vendor will be required to ensure PSET is a mandatory matching field if a broker pair is subscribed to the CCP netting service.	5.1	Must Have
CN-MA-03	Agency/Principal indicator may be required by the CCP. Either the broker should supply this on the incoming trade confirmation, or the vendor should hold this information for each broker within the static data tables.	This will need to be confirmed with the CCP's during the functional analysis stage.	5.1	TBC
CN-MA-04	For EB vs PB trades safekeeping account may need to be included as a matching field.	This will need to be confirmed with the CCP's during the functional analysis stage.  It is unknown whether the safekeeping account will need to be provided by the vendor to the CCP on EB vs PB trades	5.1	TBC
CN-MA-05	For markets where specific handling is required, additional data may need to be supplied on incoming trade confirmations, or held by the vendor in static data tables.	This will need to be confirmed during the functional analysis stage.	5.1	TBC
CN-MA-06	POA instructions for matched trades will need to be prevented from being generated if passed to the CCP. POA instructions should be released for matched trades if trades have not been netted, ie rejected by CCP	A change will be required to ensure POA instructions are released at the correct time.	5.1	Must Have
CN-MA-07	Additional data may be required by the CCP; where possible the broker should include this data on their incoming trade file, else the vendor should enrich the trade before passing to the CCP with broker data provided during on boarding.	This will need to be confirmed during the functional analysis stage.	5.1	TBC
<b>Trade Scope to be included in CCP Netting</b>			<b>6.1</b>	

Ref #	Requirement Name	Notes	Doc Ref #	Required?
CN-TS-01	Brokers should be able to select their CCP of choice to clear their OTC transactions.	This should be possible where the vendor is able to connect to multiple CCP's and the CCP's are interoperable.  This will allow brokers to follow their current on exchange netting models in place today.	6.1.1	Must Have
CN-TS-02	CCP's should support markets currently supported for on exchange flow for the OTC flow.	This will determine which markets are supported by which CCP.  Vendors will be required to hold a list of markets supported by each CCP.	6.1.2	Must Have
CN-TS-03	Brokers should be able to determine their CCP of choice at a market (PSET) level.		6.1.2.1	Must Have
CN-TS-04	Brokers should be able to set their own market eligibility and exclude markets from being netted at a CCP.	A market may be supported by a CCP, but a broker pair may agree to exclude these trades from netting due to market restrictions etc.	6.1.2.1	Must Have
CN-TS-05	The vendor should hold a table for each broker showing their counterparty brokers, whether a PSET is eligible for CCP netting or not, and their CCP of choice for each PSET.	Brokers will be required to supply this information during on boarding.	6.1.2.1	Must Have
CN-TS-06	The matching engine should identify trades for eligible markets and pass to the relevant CCP.		6.1.2.1	Must Have
CN-TS-07	For markets not supported by a CCP, brokers should be able to pass the trades to the vendor bilateral netting engine or opt to instruct trades one for one. (This will be a broker pair decision).	The matching engine will be required to identify trades in these markets and handle appropriately as per broker requirements.	6.1.2.2	Must Have
CN-TS-08	Trades for markets the broker pair has deemed 'excluded' from CCP netting will be instructed one for one.	The matching engine will be required to identify trades in these markets and handle appropriately as per broker requirements.	6.1.2.3	Must Have
CN-TS-09	CCP's should support securities currently supported for on exchange flow for the OTC flow.		6.1.3	Must Have
CN-TS-10	Securities not supported by the CCP should either be held in a static data table by the vendor, or rejected by the CCP.	Brokers preference is for the vendor to identify the eligibility of a security and only pass eligible trades to the CCP. The fall back should be for the CCP to reject any securities which are not supported.	6.1.3	Would Like
CN-TS-11	ETFs are expected to be interoperable. However if they are not, the vendor should provide brokers the option to pass ETF trades to CCP of choice agreed by broker pair.	Issues around ETF interoperability are expected to be resolved by the time CCP netting is rolled out.	6.1.3	Should Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
CN-TS-12	The vendor and CCPs should support the following: <ul style="list-style-type: none"> <li>• Executing Broker versus Executing Broker trades</li> <li>• Executing Broker versus Prime Broker trades</li> <li>• Equity Trades</li> <li>• Fixed Income Trades</li> <li>• Delivery versus Payment Trades</li> </ul>	The matching engine should identify these trade types as eligible for CCP netting.	6.1.4	Must Have
CN-TS-13	Free of Payment and Cross currency trades are out of scope for CCP netting.	The matching engine should identify these trade types as not eligible for CCP netting and prevent the trades from being passed to the CCP.  These trades will be instructed one for one.	6.1.4	Must Have
CN-TS-14	Broker pairs should have the ability to determine a trade type as 'excluded' from netting.	The matching engine should identify these trade types as not eligible for CCP netting and prevent the trades from being passed to the CCP.  These trades will be instructed one for one.	6.1.5	Must Have
CN-TS-15	Only successfully matched trade pairs within the matching engine will be passed to the CCP.	Unmatched, mismatched, alleged and rejected trades will be prevented from being passed to the CCP.	6.1.5	Must Have
<b>CCP Trade Status Updates</b>			<b>6.2</b>	
CN-SU-01	The matching engine will support the following additional trade status updates which will be passed to brokers: <ul style="list-style-type: none"> <li>'Sent to CCP'</li> <li>'Accepted by CCP'</li> <li>'Rejected by CCP'</li> <li>'Cancel Sent to CCP'</li> <li>'Cancel Accepted by CCP'</li> <li>'Missed CCP Cut Off'</li> <li>'Not Eligible for CCP'</li> </ul>	The vendor should use the status update naming conventions when returning these statuses.	6.2	Must Have
CN-SU-02	It should be possible for each broker to opt to (or not to) receive these status updates.	Each brokers preference should be held within the broker static data tables.	6.2	Must Have
CN-SU-03	Brokers should be able to determine the format and communication method in which they require these status updates to be returned.	Each brokers preference should be held within the broker static data tables.  The vendor should allow each broker the flexibility to determine the data requirements for each status update.	6.2	Must Have
CN-SU-04	Status updates should be returned to the brokers real time (for those who opt to receive the updates)	Upon the vendor or the CCP carrying out an action against a trade, the relevant status update should be returned.	6.2	Must Have
CN-SU-05	The trade audit history within the vendor GUI should reflect the correct status update.	Upon the vendor or the CCP carrying out an action against a trade, the GUI should display the correct status.	6.2	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
CN-SU-06	Each status update should include a status qualifier indicating the relevant status update, i.e. Sent to CCP will include 'Sent to CCP' qualifier.		6.2	Must Have
<b>CCP Net Trade Creation</b>			<b>6.3</b>	
CN-NT-01	It should be possible for each broker to agree with the CCP of choice whether they require OTC and on exchange transactions to be netted together.	It is assumed that CCP's will have the ability to net OTC and on exchange transactions together.  Brokers should be able to agree this at a market (PSET) level.	6.3	Should Have
CN-NT-02	CCP's should follow the current on exchange rules and criteria, incl. netting algorithm, when netting OTC transactions.	It is yet to be confirmed how CCP's will net prime broker trades across segregated accounts.  Safekeeping account for EB vs PB trades will need to be taken into account when calculating the nets.	6.3.1	Must Have
CN-NT-03	CCP's will need to ensure they have the same population of trades from the vendor when calculating nets.	This is where CCP's are interoperable and will ensure they are able to settle against one another.	6.3.1	Must Have
CN-NT-04	A net trade should be created by the CCP even if only one execution is received.		6.3.1	Must Have
CN-NT-05	CCP's will be required to support two standard netting cycles; - Cycle 1 EOD on T - Cycle 2 EOD on T+1	The time at which each CCP should initiate netting will be determined by the current timings they follow for the on exchange flow.  It should be possible, if required, that the broker community can request this timing be changed.	6.3.2	Must Have
CN-NT-06	The CCP should also offer brokers an additional optional cycle on the morning of T+1, whereby the end of day net on T will be re-calculated to include any additional trades received since net cycle 1.	It should be possible for each broker to determine whether they will opt to utilise this additional cycle or not.	6.3.2	Could Have
CN-NT-07	Upon the completion of a netting cycle, each CCP will return a net trade report of all of the calculated nets for that day (for a particular trade date) to every broker.	The net trade reports will be returned in the same format as they currently are for the on exchange flow at end of day following the completion of a netting cycle	6.3.3	Must Have
CN-NT-08	The net trade report should also contain the unique reference applied to each net by the CCP.		6.3.3	Must Have
CN-NT-09	The broker should be able to determine whether OTC transactions should be returned in a separate net trade report to the on exchange business, or within one report	This will depend on the capability of the CCP and will be confirmed with each CCP during the functional analysis stage.	6.3.3	Must Have
CN-NT-10	CCP's should offer brokers the opportunity to subscribe to receive details of all executions received by the CCP each day; a 'gross trade report'	This is as per the current on exchange process.	6.3.3.1	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
CN-NT-11	The gross trade report should quote the brokers unique trade reference id (for each execution).	The vendor is required to ensure that each trades unique reference id is passed to the CCP.	6.3.3.1.1	Must Have
CN-NT-12	The gross trade report should quote the correct net reference against the associated gross trade executions making up the net.	This is as per the current on exchange process.	6.3.3.1.1	Must Have
<b>CCP Netting Workflows: Pre First Netting Cycle 1 (EOD on T)</b>			<b>6.4.1</b>	
CN-C1-01	Upon a pair of broker trades becoming successfully matched, the matching engine will immediately pass the trades to the CCP to be included in the next net cycle and will return a 'Sent to CCP' status update to brokers (if required).	Each brokers config/static set up will determine whether they wish to receive a status update upon trades being passed to the CCP.	6.4.1.1	Must Have
CN-C1-02	Trades which have been sent to the CCP will be displayed within the 'Matched and Sent to CCP' folder of the GUI.		6.4.1.1	Must Have
CN-C1-03	Upon the CCP receiving and accepting the trade pair, an 'Accepted by CCP' status update will be returned by the vendor to brokers (if required).	Each brokers config/static set up will determine whether they wish to receive a status update upon trades being received / accepted by the CCP.	6.4.1.1	Must Have
CN-C1-04	Trades which have been received and accepted by the CCP will be displayed within the 'Matched and Accepted by CCP' folder of the GUI.		6.4.1.1	Must Have
CN-C1-05	Upon the CCP receiving trades from the matching engine for an unsupported market or security, or for a broker who is not subscribed to the service, the trades will be rejected and a 'Rejected by CCP' status will be returned by the vendor to brokers (if required).	Each brokers config/static set up will determine whether they wish to receive a status update upon trades being rejected by the CCP.	6.4.1.2	Must Have
CN-C1-06	Where a POA agreement is in place the vendor should release the instruction upon the trade being identified as 'rejected'.		6.4.1.2	Must Have
CN-C1-07	If a trade is rejected while the CCP resolves a set up issue, the vendor/CCP should re-process the trade once the issue has been rectified.	A rejected status update should not be returned to the broker in this instance.	6.4.1.2	Must Have
CN-C1-08	Trades which have been rejected by the CCP will displayed within the 'Matched and Rejected by CCP' folder of the GUI.		6.4.1.2	Must Have
CN-C1-09	In order for a cancellation of a matched pair to be processed by the matching engine and then passed to the CCP, a broker pair must both agree to the cancellation.	It is assumed that the CCP will accept cancellations of trades which have already been sent to and accepted by the CCP, but have not yet been netted, and are therefore not yet locked in. 1. A cancellation will be received	6.4.1.3	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
		<p>from a broker</p> <p>2. A cancel request will be generated to the counterparty broker in the form of a status update (and placed in the cancel request folder within the GUI).</p> <p>3. The cancel request will be accepted by the counterparty broker generating a consequent cancellation.</p> <p>Brokers should not have the ability to accept a cancellation within the GUI.</p> <p>4. Upon receipt of the counterparty cancellation the matching platform will cancel the matched executions (the cancel request will also be closed out).</p> <p>The cancelled trades will show as cancelled within the GUI and displayed in the 'Cancel Complete' folder.</p>		
CN-C1-10	<p>Upon a cancellation being successfully processed by the matching platform, a cancellation update will be passed to the CCP.</p> <p>A 'Cancel Sent to CCP' status update will be returned to each broker (if required).</p>	Each brokers config/static set up will determine whether they wish to receive a status update upon cancellations being passed to the CCP.	6.4.1.3.1	Must Have
CN-C1-11	Upon the CCP confirming receipt of the cancellation, the matching engine will return a 'Cancel Accepted by CCP' status update to each broker (if required).	The CCP will remove the trades from the earmarked netting cycle.	6.4.1.3.1	Must Have
CN-C1-12	If a broker pair agree to cancel and replace a matched and sent to/accepted by CCP trade pair, the matching engine will process the cancellation following the cancel request/accept process being completed and will process the replacement trade as an ordinary matched trade.		6.4.1.3.2	Must Have
CN-C1-13	<p>If a broker sends a cancel and replace by mistake, or a broker pair do not agree a cancellation the matching platform should attempt to link the cancellation and the unmatched trade together and close them out.</p> <p>The previously matching trades will remain matched.</p>	<p>The matching engine could automate this process on behalf of the broker or the broker could manually link the trades and close them out manually; this would need to be processed at a supervisor and four eyes verification level.</p> <p>Upon the unmatched trade and the cancellation request being linked and closed out, the vendor should return a status update to the broker (if required)</p>	6.4.1.3.3	Must Have
CN-C1-14	If a cancellation or replacement trade is received into the matching platform for any trade which is not successfully matched, the matching engine will process the cancellation	The trades are not earmarked for netting. Detailed workflows for these scenarios can be found in sections 4.4.4 and 4.4.5 of the AFME Broker Matching Business	6.4.1.3.4	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
	and replacement accordingly without the need to follow a cancel request and accept process.	Process Requirements Document.		
<b>CCP Netting Workflows: Result of First Netting Cycle (EOD on T)</b>			<b>6.4.2</b>	
CN-R1-01	At EOD on T the CCP will complete the first netting cycle; - All net trades will be locked in - Net trade reports will be returned to the brokers (either directly or via a GCM).	Net trade reports will be returned real time.	6.4.2	Must Have
CN-R1-02	Where required, the CCP will also return a gross trade report detailing all executions received that day.		6.4.2	Must Have
CN-R1-03	All gross trades successfully netted will be displayed within the GUI as 'Matched and Netted'.		6.4.2	Must Have
<b>CCP Netting Workflows: Pre Second Netting Cycle (EOD on T+1)</b>			<b>6.4.3</b>	
CN-C2-01	Trades which are not matched (unmatched, mismatched or alleged) prior to the first net cycle, but become matched before the second cycle is initiated, will be sent to the CCP to be included in the second net cycle.	The matching engine will process these trades in the same way as trades matched successfully on T, ie pass to the CCP and await an accepted status.  The matched trade pair should be removed from the previous GUI view and displayed within the matched and sent to CCP or matched and then the Accepted by CCP folder of the GUI.	6.4.3.1	Must Have
CN-C2-02	If a back-dated (late) trade is received and matched following the completion of the first netting cycle, the trade pair will be sent to the CCP to be included in the second net cycle.	The matching engine will process these trades in the same way as trades matched successfully on T, ie pass to the CCP and await an accepted status.  The matched trade pair should be removed from the previous GUI view and displayed within the matched and sent to CCP or matched and then the Accepted by CCP folder of the GUI.	6.4.3.2	Must Have
CN-C2-03	If a cancellation is received for a trade matched post cycle 1 and is pending inclusion in cycle 2, the matching platform will follow the cancel request and accept process and pass the cancelled trade to the CCP to be removed from cycle 2.		6.4.3.3.1	Must Have
CN-C2-04	If both parties agree to cancel a matched and netted trade post the 1 <sup>st</sup> netting cycle, the cancel request and accept process will be followed and a contra trade (opposite but equal replacement trade) will be created remove the original movement in the next net.	Both the net and the gross executions making up the net will be locked in following the completion of a netting cycle.  The contra trade will either be created by the broker or the matching platform. Brokers will need to confirm their preference during the on boarding stage	6.4.3.3.2.1	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
		The contra trade will be treated by the CCP as an ordinary matched execution.		
CN-C2-05	Upon a vendor contra trade being created, the matching platform will be required to apply the trade reference of the original gross execution to the contra trade	Any status updates sent to the broker(s) for the contra trade, ie sent to CCP, should include this reference, therefore allowing Brokers to link the incoming statuses to the original execution.	6.4.3.3.2.1	Must Have
CN-C2-06	If both parties agree to cancel and replace a matched and netted trade post the 1 <sup>st</sup> netting cycle, the cancellation will be processed and a contra trade will remove the original movement, and the replacement trade will be treated as an ordinary matched execution.	Both the contra and the replacement trade will be treated as ordinary matched executions by the CCP.	6.4.3.3.2.2	Must Have
CN-C2-07	If one broker generates a cancel and replace for a matched and netted trade post the 1 <sup>st</sup> netting cycle, the matching platform should look to link the cancellation and the unmatched trade together and close them out.	This is as per the process for cancellation and replacement trades pre netting.	6.4.3.3.2.3	Must Have
CN-C2-08	CN-C2-01 – CN-C2-07 will apply for those brokers who opt to utilise the T+1 am re-calculated net.	Trades processed after EOD on T and the re-calculated net cycle on T+1 am will follow the same processes as trades received post cycle 1 but prior to cycle 2.	6.4.3	Could Have
<b>CCP Netting Workflows: Result of Second Netting Cycle (EOD on T+1)</b>			<b>6.4.4</b>	
CN-R2-01	At EOD on T+1 the CCP will complete the first netting cycle; - All net trades will be locked in - Net trade reports will be returned to the brokers (either directly or via a GCM).	Net trade reports will be returned real time.	6.4.4	Must Have
CN-R2-02	Where required, the CCP will also return a gross trade report detailing all executions received that day.		6.4.4	Must Have
CN-R2-03	All gross trades successfully netted will be displayed within the GUI as 'Matched and Netted'.		6.4.4	Must Have
CN-R2-04	CN-R2-01 – CN-R2-03 will apply for those brokers who opt to utilise the T+1 am re-calculated net.	Net trades created for the re-calculated net on T+1 am will follow the same process as nets created at EOD on T+1. However the re-calculated net will contain the trades originally netted on T. (whereas the EOD T+1 net will only contain trades received post the final netting cycle).	6.4.4	Could Have
<b>CCP Netting Workflows: Post Second Netting Cycle (Final Net Cycle)</b>			<b>6.4.5</b>	
CN-PF-01	Post the final netting cycle the matching engine will return a 'Missed CCP Cut Off' status update to brokers (if required) for any trades which remain 'not matched'	The matching engine will have received an update from the CCP confirming the final cycle has been initiated and therefore trades can no longer be netted for a particular	6.4.5.1	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
	(unmatched, alleged, mismatched)	trade date. - For trades which were previously unmatched, the matching engine will only return status updates to the originating broker - For trades which were previously mismatched, the matching engine will return status updates to the both the originating broker and counterparty broker. - Trades will be displayed in the 'Missed CCP Cut Off' folder within the GUI.		
CN-PF-02	Where a POA agreement is in place the vendor will release settlement instructions for all trades remaining not matched post the final netting cycle.	Where No POA agreement is in place the broker will release the instruction from within their in house system upon receipt of the status update.	6.4.5.1	Must Have
CN-PF-03	If a subsequent match is received (for a previously unmatched trade), the matching engine should set the trade pair to matched and release a 'Missed CCP Cut Off' status to the counterparty broker.	Only the counterparty broker will be informed that the trade has missed the CCP Cut off. The broker of the original unmatched trade would have received the update post the final net cycle completing.	6.4.5.2	Must Have
CN-PF-04	If a broker pair books trades post the final net cycle, ie with a back-dated trade date, the matching engine will process these trades in the same way as those trades matched post the final netting cycle; a Missed CCP Cut Off status will be returned to each broker.		6.4.5.3	Must Have
CN-PF-05	Cancellations post the final net cycle should not be processed by the matching engine. Either the broker should prevent the cancel from being passed to the vendor or the cancel (if not prevented) should be shows as a 'cancellation exception' within the GUI.  The cancellation of the matched and netted execution will be processed bilaterally; however the CCP obligation will still remain.	The 'cancellation exception' should only highlight that a broker is attempting to cancel a matched and netted execution. Brokers should not be required to take any actions within the GUI against this update.  A 'Cancel Request' status update to the counterparty broker (if required).	6.4.5.4.1.1	Must Have
CN-PF-06	If a cancellation and replacement trade is received from one broker for a matched and netted trade post the final netting cycle the matching platform should look to link the cancellation and the unmatched trade together and close them out	This is as per the process for cancellation and replacement trades pre netting.	6.4.5.4.1.2	Must Have
CN-PF-07	If a cancellation is received for an unmatched trade post the final netting cycle, the matching engine should process the cancellation.	As per the matching process, the matching engine will cancel the unmatched trade and remove the allegement from the counterparty.  In the mismatch scenario, the matching platform will set the counterparty trade to unmatched.	6.4.5.4.2.1	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
		<p>The GUI will reflect the status update changes for both brokers accordingly.</p> <p>Where a POA agreement is in place, the vendor will generate a cancellation market instruction.</p>		
CN-PF-08	If a cancellation is received for a trade which became matched after the final netting cycle, the matching engine will process the cancellation and break the match.	<p>As per the matching process the matching engine will cancel the originating brokers trade and break the match.</p> <p>The GUI will reflect the status update changes for both brokers accordingly.</p>	6.4.5.4.2.2	Must Have
<b>Non CCP Trades</b>			<b>6.5</b>	
CN-NC-01	<p>All trades deemed 'Non CCP Eligible' will be prevented from being passed to the CCP;</p> <ul style="list-style-type: none"> <li>- Markets not supported by the CCP</li> <li>- Trades excluded by the broker pair</li> </ul>	<p>The matching engine should identify these trades as not eligible for CCP netting.</p> <p>Where a CCP does not support a market (not where the broker pair have excluded the market however), brokers will have the option to have their matched transactions netted bilaterally via the vendor netting engine.</p>	6.5	Must Have
CN-NC-02	<p>Non CCP trades will be assigned a 'Not Eligible for CCP' status.</p> <p>This status update will be returned to brokers (if required) real time upon the platform identifying the trades as not eligible.</p>	Non CCP eligible trades will be displayed in the 'Matched Not Eligible for CCP' folder of the GUI.	6.5	Must Have
CN-NC-03	<p>Where a POA agreement is in place the matching engine will immediately release a market instruction for each trade upon identifying the trades as non CCP eligible.</p> <p>Where no POA agreement is in place the broker will release the instruction from within their in house system upon receipt of the status update.</p>		6.5	Must Have
CN-NC-04	Non eligible CCP trades which remain unmatched or have been cancelled and corrected, the vendor should follow the same process as the OTC Matching model		6.5	Must Have
<b>Settlement Processing</b>			<b>6.6</b>	
CN-SP-01	Brokers will have suppressed the release of settlement instructions to the market for gross executions.		6.6	Must Have
CN-SP-02	For CCP eligible trades, settlement instructions will be released to the market upon the creation of the net.		6.6.1	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
CN-SP-03	The CCP will instruct the market where a POA agreement is in place.	The CCP will be required to follow the same POA agreements that are in place for the on exchange flow today.  It should be possible for a broker to set up a new POA agreement with a CCP if the agreement does not exist today for the on exchange flow.	6.6.1.1	Must Have
CN-SP-04	Where no POA agreement exists the broker will be required to instruct the market.	The Broker will be required to follow the same process as they do today for markets where no POA agreement is in place with the CCP.	6.6.1.2	Must Have
CN-SP-05	For Non CCP trades, settlement instructions will be released to the market upon one of the following status updates being generated/received: 'Missed CCP Cut Off' 'Rejected by CCP' 'Not Eligible for CCP'		6.6.2	Must Have
CN-SP-06	Where the vendor has POA, settlement instructions will be generated upon the trade being identified as 'Non CCP'.	The vendor will follow the same process as is in place for instructing matched transaction for a broker who is not subscribed to the netting service as described in the AFME Broker Matching Business Process Requirements Document	6.6.2	Must Have
CN-SP-07	Where no POA is in place, settlement instructions will be generated upon receipt of the trade status update.	This is as per the current process today to instruct a matched transaction.	6.6.2	Must Have
<b>Broker Reconciliation</b>			<b>6.7</b>	
CN-BR-01	The reconciliation process in place for the on exchange flow today between each Broker and the CCP should be utilised for the netting of OTC transactions.	Current reconciliation processes reconciles gross trade reports vs net trade reports.  Brokers will need to confirm with the CCP whether they require to receive these reports.	6.7	Must Have
<b>GUI Requirements</b>			<b>6.8</b>	
CN-GR-01	It should not be possible to manually cancel a matched trade within the GUI; whether CCP eligible or not.	User profiles should prevent manual cancellations of matched trades.	6.8.1	Must Have
CN-GR-02	Broker pairs will need to provide the following during the on boarding process to utilise the CCP netting functionality: - Both brokers are subscribed to CCP netting service - Broker Pair combinations; • Markets eligible for CCP Netting • Markets excluded from CCP Netting (outside of markets not supported by the CCP's) - Trade Types eligible / not eligible for CCP Netting.		6.8.2.1	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
CN-GR-03	It should be possible for a broker pair to update/change their netting requirements, for example removing or including a PSET, once on boarded.	Both brokers will be required to agree the change and also state the time at which it should take effect.	6.8.2.1	Must Have
CN-GR-04	Each broker will be required to complete the following: <ul style="list-style-type: none"> <li>- Subscribe to CCP Netting service</li> <li>- Confirm Broker CCP ID</li> <li>- Confirm CCP of choice at market (PSET) level</li> <li>- Confirm the CCP status updates they wish to receive, when and in which format, including any specific data requirements</li> <li>- Confirm netting cycles to be utilised.</li> <li>- For non CCP eligible trades confirm if the vendor will have POA to release market instructions, and if so, in which markets and what the SSI's should be used or if the vendor should bilaterally net the trades.</li> <li>- Provide agency/principal indicator to be stored in the static data tables (if required by CCP's).</li> </ul>		6.8.2.1	Must Have
CN-GR-05	Current matching fields will need to be included as additional matching criteria: <ul style="list-style-type: none"> <li>- Payment Method</li> <li>- PSET</li> <li>- Additional fields may be required by the CCP to create nets; this data will be confirmed at the functional analysis stage.</li> </ul>	These fields will be mandatory for a broker pair to match against to utilise CCP netting.	6.8.2.2	Must Have
CN-GR-06	The vendor should hold a table which maps the following: <ul style="list-style-type: none"> <li>- Broker Pair</li> <li>- Market <ul style="list-style-type: none"> <li>• The table should contain a list of all possible markets supported by all of the CCP's</li> </ul> </li> <li>- Eligibility <ul style="list-style-type: none"> <li>• The table should default the market to eligible / not eligible based on CCP.</li> <li>• A broker pair should be able to change an eligible market to not eligible. However it should not be possible vice versa.</li> </ul> </li> <li>- Preferred CCP per Broker <ul style="list-style-type: none"> <li>• The table should contain a list of CCP's which support a particular market</li> </ul> </li> </ul>	<p>This information will need to be provided by brokers during the on boarding process.</p> <p>This data should be maintained by each broker pair.</p> <p>If any changes are required both brokers will be required to agree and accept the changes via the GUI.</p>	6.8.2.3	Must Have
CN-GR-07	The vendor should hold a table which maps the following: <ul style="list-style-type: none"> <li>- Broker Pair Combination</li> <li>- Trade Types <ul style="list-style-type: none"> <li>• Executing Broker versus Executing Broker trades</li> <li>• Executing Broker versus Prime Broker trades</li> </ul> </li> </ul>	<p>This information will need to be provided by brokers during the on boarding process.</p> <p>This data should be maintained by each broker pair.</p> <p>If any changes are required both</p>	6.8.2.4	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
	<ul style="list-style-type: none"> <li>Equity Trades</li> <li>Fixed Income Trades</li> <li>Delivery versus Payment Trades</li> </ul> - Eligibility	brokers will be required to agree and accept the changes via the GUI.		
CN-GR-08	The vendor should provide the ability to hold the agency/principal indicator required by each broker (if a broker is unable to supply the indicator on their trade confirmations).	To be confirmed if required by CCP's	6.8.2.5	Could Have
CN-GR-09	The vendor GUI will require the following additional folders/views: <ul style="list-style-type: none"> <li>- Matched and Sent to CCP</li> <li>- Matched and Accepted by CCP</li> <li>- Matched and Netted</li> <li>- Cancel Exception</li> <li>- Matched Not Eligible for CCP</li> <li>- Matched Missed CCP Cut Off</li> </ul>		6.8.3	Must Have
CN-GR-10	It should be possible for a broker to search within the GUI on the net reference id; this search should return all of the OTC gross executions which have been included in a net.		6.8.4.1	Must Have
<b>Other Requirements</b>			<b>6.9</b>	
CN-OR-01	The broker community would like the vendor to offer transaction reporting of the gross executions from within the platform.	Requirements for transaction reporting will not be documented in this business process requirements document. A separate document will be produced by brokers on a bilateral basis, if required.	6.9.1	Would Like
CN-OR-02	The CCP will be required to ensure the following is in: <ul style="list-style-type: none"> <li>- Current CCP standard closing hours should be followed.</li> <li>- Margins will be calculated following the current approach for the on exchange flow.</li> <li>- Trade reconciliations will be provided, as per the on exchange flow.</li> <li>- Settlement disciplines, fines and buy in regime should be aligned with the on exchange practises.</li> <li>- The rulebook will be updated to include OTC transactions.</li> </ul>		6.9.2	Must Have
<b>MIS Requirements</b>			<b>7</b>	
CN-MI-01	The vendor should provide MIS via the GUI screens and in a report format.	The frequency of MIS will be determined in the SLA.	7	Must Have
CN-MI-02	The GUI should allow a broker to generate ad-hoc MIS reports.		7	Must Have

Ref #	Requirement Name	Notes	Doc Ref #	Required?
CN-MI-03	<p>The vendor should supply the following:</p> <ul style="list-style-type: none"> <li>- Number of trades sent (Total and # per broker)</li> <li>- Timing of trades being received into the platform</li> <li>- Number and % of trades, matched, mismatched, unmatched on TD, T+1, T+2 etc across lifecycle (analysed against each broker and against overall volume)</li> <li>- Number of Trades matched and missed CCP cut off</li> <li>- Number of Trades matched and not eligible for CCP</li> <li>- The %age entered by an agreed market standard time</li> <li>- The %age matched by and agreed market standard time</li> <li>- The %age of trades sent to SSP on TD and T+1.</li> <li>- The performance achieve per market (incl %age matches, market averages &amp; compression level)</li> <li>- What is the market average for each metric and how does each broker compare</li> <li>- Performance across all metrics by broker / cpty pair</li> <li>- Root cause analysis data of mismatched, unmatched trades to assist in increasing match rates (Price, TD, Consideration differences etc)</li> <li>- Ability to query raw data and build ad-hoc reports</li> <li>- Cancel rate / cancel rebook rate pre and post net</li> <li>- Metrics of late booked trades by counterparty</li> <li>- Netting compression rates</li> </ul>		7	Must Have

## 8.2. Service Level Agreements (SLA) Requirements

Ref #	Function / Operation	Requirement	Required?
<b>SLA Requirements</b>			
1	Trade CCP netting statuses should be identified and displayed in the related GUI folder.	All status updates should be displayed real time. All changes to trade statuses should be reflected real time. The trade should be reflected in the correct GUI view upon a status change taking place.	Must Have
2	The matching platform should ensure all matched and eligible trades are passed to the brokers CCP of choice during the CCP opening hours.	The matching platform / the CCP should ensure trades are held if the CCP is closed.	Must Have
3	Creation of contra trades by the matching platform.	Contra trades should be created real time upon both brokers agreeing a cancellation.	Must Have

Ref #	Function / Operation	Requirement	Required?
4	Re-processing of trades rejected while the CCP resolves a set up issue.	Trades rejected while the CCP resolves a set up issue should be retried as soon as the issue has been resolved.	Must Have
5	The matching platform should release settlement instructions real time where POA is in place.	POA settlement instructions should be released to the market upon the system identifying an instruction should be released.	Must Have
6	All actions, whether automated or manual should be recorded and displayed within the GUI by an 'audit trail' for each trade	The audit trail must be updated real time, and should display the user name and contact and time and date of update.	Must Have
7	The matching platform should archive all matched and netted trades after three months. Any trades which are not matched (unmatched, alleged or mismatched) should not be archived and should remain in their current view.	As per the matching process, if a broker requires a trade which is not matched to be archived, they will need to send a request to the vendor to archive the trade manually. A manual archive request will need to be signed off and agreed by a supervisor at the broker.	Must Have
8	Changes to broker pair static data.	Any changes to broker pair static data, ie eligibility of a PSET, should be made by the deadline set by the broker pair.	
9	Gross and Net trade reports should be returned to brokers as per the CCP timings in place today.		Must Have
10	MIS should be available at all times.	MIS should be updated real time and the GUI should display the real time status for all/each broker.	Must Have
11	On boarding and testing support	As per the matching process, brokers will require vendor support during the on boarding process and should facilitate testing requirements, i.e. on test or live environments.	Must Have

## 9. Open Issues

#	Doc Section	Issue	Comment	Status
OTC Netting via a CCP				
		N/A		

## 10. Approvals

### 10.1. Requirements Approval

Who	Signoff	Signoff Received	Title	Date
Bank of America Merrill Lynch	Richard Mills	James Tone Richard Mills	Snr Ops Manager – Equity Post Trade Services Securities Projects & Industry Initiatives	21/03/2012
Barclays Capital	Shaun Blake	Shaun Blake	Head of Strategy for Cash Equities	
Citi Group	Alex Milton	Alex Milton	Equity Settlements (SVP)	14/03/2012
Credit Suisse	Paul Taylor Oliver Wilson	Paul Taylor	CS AG EMEA Domestic Settlement(VP)	09/03/2012
Deutsche Bank	James Rochford Wayne Howard	Wayne Howard	EMEA Head of Cash Equity Trading Product Ops  Head of Stock Loan, Prime Brokerage & Synthetic Equity - London	13/03/2012
Goldman Sachs	Ben Duckworth Peter Hodgkinson	Ben Duckworth Peter Hodgkinson	Executive Director – Trading Operations Change Executive Director – Trading Operations	13/03/2012
HSBC	Ian Little	Ian Little	Head of Offshore Equities	
JP Morgan	Julian Alsford	Julian Alsford	Settlements Manager (VP)	12/03/2012
Morgan Stanley	Martyn Nott	Martyn Nott	Global head of Trade Support for Securities (ED)	19/03/2012
Nomura	Jonathan May	Jonathan May	Head of Cash Equities Middle Office	09/03/2012
RBS	Christopher Ralph	Robert Mason	Head of EMEA Fixed Income Middle Office	13/03/2012
UBS	David Grace	David Grace	EMEA Head of Market Initiatives, Securities Operations	12/03/2012

## 11. Appendix

### 11.1. Supporting Information

**To be included upon final sign off of documents.**