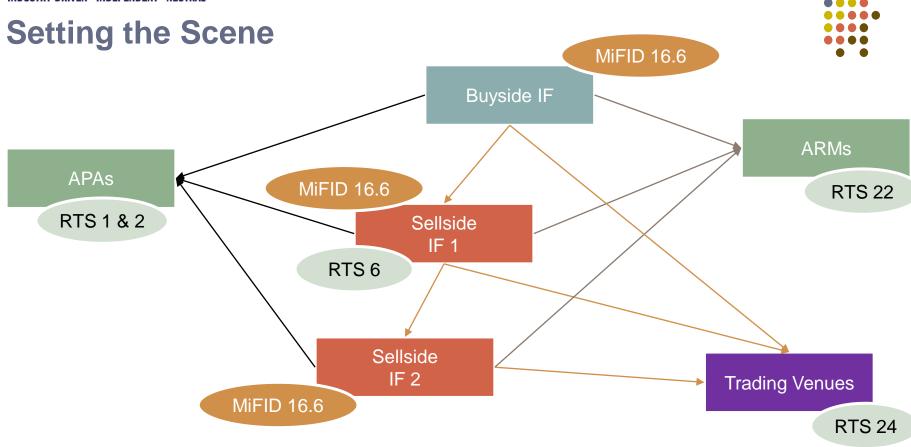
MiFID II Presentation



Jim Kaye, Director & Co-Chair of the Global Steering Committee, FIX Trading Community, Director of Execution Services, Bank of America Merrill Lynch







- We need to ensure that everybody involved in the trade flow...
 - Has sufficient data to meet their own record keeping obligations
 - Has sufficient data to meet their own regulatory reporting obligations
 - Provides sufficient data up/down stream to allow other parties to meet their obligations



Who Needs What & Why

What	Why
Sell indicator: Long Short Short exempt 'Undisclosed'	Broker transaction reporting
SI indicator	Trade reporting ("who reports")
Aggregated order	Sending to venues, transaction reporting

For venue record keeping

Order capacity

Client identifier

Submitting firm

Non-executing broker

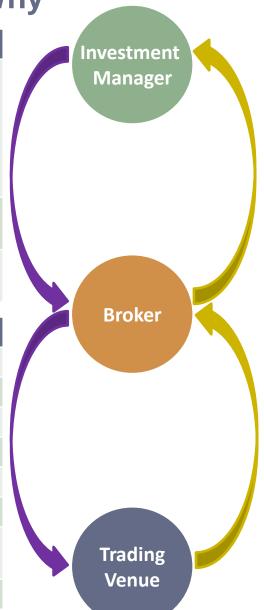
Investment decision id

Exec within firm id

Flags (DEA, algo, commodity deriv, liquidity provision)

liquidity provision)

Aggregated order (AGGR)



What	Why
Trade capacity	IM transaction reporting
Trade report indicator	Trade reporting ("who reports")
SI indicator	Trade reporting ("who reports")
Exec venue identifier	IM transaction reporting
OTC trade flags	IM transaction/trade reporting
Timestamps (up to µs)	IM transaction/trade reporting
(-1	3

For member transaction reporting

Trade capacity

Transaction id

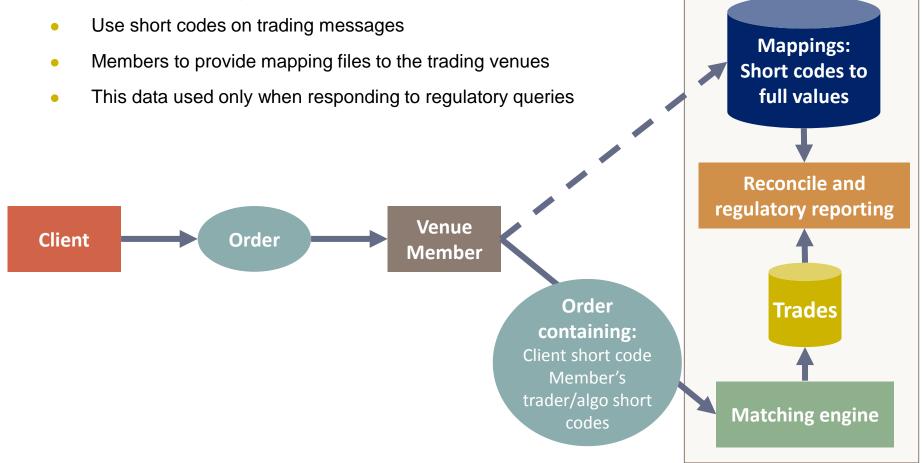
Waiver flags

Timestamps (up to µs)



Trading Venue Record Keeping

- Trading venues have record keeping obligations
- This includes some 'personal' information ("national ids")
- Common approach agreed by a number of venues:





Short Sell Identification



"An investment firm shall determine, on a best efforts basis, the short sales transactions in which its client is the seller" (RTS 22 article 11)

MiFID Value	Description	FIX Value (Side 54)
SELL	No short sell	2 Sell
SESH	Short sale with no exemption	5 Sell short
SSEX	Short sale with exemption	6 Sell short exempt
UNDI	Information not available	H Undisclosed sell

Three options:

- A) Full short sale marking (no UNDI)
- B) No short sale marking, everything UNDI (new FIX value)
- C) No short sale marking, everything 'sell' (existing FIX value but 'wrong meaning')



Trading Instructions and Consents



Where Can This Order Be Traded?

- New field ExDestinationType(tbd)
 - 0 = No trading venue restriction
 - 1 = Can be traded only on a trading venue
 - 2 = Can be traded only on a Systematic Internaliser (SI)
 - 3 = Can be traded on a trading venue or Systematic Internaliser (SI)

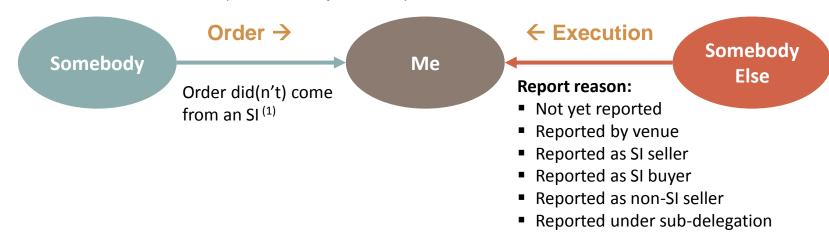


Trade Reporting – Who, What & When



Who

Venue → SI → Seller (with no duplication)



What

- Trade facts including venue of execution (venue MIC, XOFF, SINT), trade id
- Publication date/time (note can be derived by the APA)

When

Deferral = own account + large in scale + deferral requested + deferral permitted

Other trade reporting details required on transaction reports

- Pre-trade waiver flags (market-side reports where trading on trading venues)
- OTC flags (transaction reports for off-venue trading) includes the deferral flag

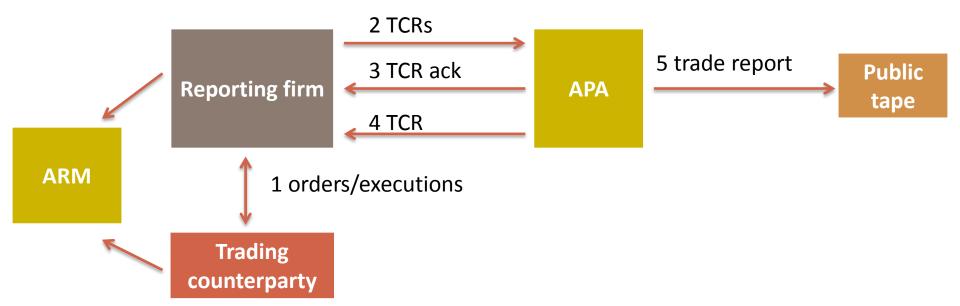


Trade Reporting – Data Sourcing & Workflow



Who Produces What

- Core trade facts (including execution time) the reporting firm
- Deferral request the reporting firm
- Transaction id the APA
- Publication time and venue the APA
- Trade flags varies...



6 transaction reports



Trade Reporting – "Who Reports" – The Tags



Data element	Full FIX Details	FIX 4.x Details*
"Order came from an	New OrderAttributeGrp component containing three fields,	8015 OrderAttributeTypes -
SI"	NoOrderAttributes(2593), OrderAttributeType(2594) and	flattened version of OrderAttribute
	OrderAttributeValue(2595) with values:	component
	OrderAttributeType(2594)=5 (Systematic internaliser order)	
	OrderAttributeValue(2595)="Y"	
Trade report indicator	New TradeReportingIndicator field (2524) with values:	n/a (as full details)
	0 = Trade has not (yet) been reported	
	1 = Trade has been reported by a trading venue as an "on-	
	book" trade	
	2 = Trade has been reported as a "systematic internalizer"	
	seller trade	
	3 = Trade has been reported as a "systematic internalizer"	
	buyer trade	
	4 = Trade has been reported as a "non-systematic	
	internalizer" seller trader	
	5 = Trade has been reported under a sub-delegation	
	arrangement by an investment firm to a reporting facility (e.g.	
	APA) on behalf of another investment firm	
Sub-delegated	OrderAttributeType(2594)= <tbd> (All executions for the order</tbd>	n/a (as full details)
	are to be reported to an APA)	
	OrderAttributeValue(2595)= <apa id=""></apa>	

^{*}To be used by implementations that cannot accommodate later tag numbers in earlier FIX versions, or repeating groups.



Meet The Trade Flags – Venue Flags



Data element	Full FIX Details	FIX 4.x Details
RFPT ref price waiver flag	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) = 0 (Pre-trade transparency waiver) TrdRegPublicationReason(2670) = 3 (No public price preceding order as public reference price was used for matching orders)	8013 TrdRegPublicationReasons - flattened version of TradeRegPublicationGrp component
NLIQ NT flag	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) = 0 (Pre-trade transparency waiver) TrdRegPublicationReason(2670) = 0 (No preceding order in book as transaction price set within average spread of a liquid instrument)	8013 TrdRegPublicationReasons - flattened version of TradeRegPublicationGrp component
OILQ NT flag	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) = 0 (Pre-trade transparency waiver) TrdRegPublicationReason(2670) = 1 (No preceding order in book as transaction price depends on system- set reference price for an illiquid Instrument)	8013 TrdRegPublicationReasons - flattened version of TradeRegPublicationGrp component
PRIC NT flag	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) = 0 (Pre-trade transparency waiver) TrdRegPublicationReason(2670) = 2 (No preceding order in book as transaction price is subject to conditions other than current market price)	8013 TrdRegPublicationReasons - flattened version of TradeRegPublicationGrp component



Meet The Trade Flags – Off-Venue Flags



Data element	Full FIX Details	FIX 4.x Details
BENC flag	SecondaryTrdType(855) - existing field from 4.4, being added to execution reports	n/a (as full details)
_	64 -> Benchmark	
SDIV flag	TradePriceConditionGrp component - existing from 4.4, being added to execution	8014 TradePriceConditions - flattened version
	reports	of TradePriceConditions component
	TradePriceCondition(1839) = 13 (Special dividend)	
TNCP flag	TradePriceConditionGrp component - existing from 4.4, being added to execution	8014 TradePriceConditions - flattened version
	reports	of TradePriceConditions component
	TradePriceCondition(1839) = 16 (Trade exempted from trading obligation)	
ACTX flag	TrdSubType(829) - existing field from 4.4, being added to execution reports	n/a (as full details)
	37 -> Crossed trade	
RPRI SI flag	TradePriceConditionGrp component - existing from 4.4, being added to execution	8014 TradePriceConditions - flattened version
	reports	of TradePriceConditions component
	TradePriceCondition(1839) = 14 (Price improvement)	
ILQD SI flag (as per RTS	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) =	
[1)	1 (Post-trade deferral)	version of TradeRegPublicationGrp
	TrdRegPublicationReason(2670) = 4 (No public price quoted as order size is above	component
	standard market size")	
	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) =	
per RTS 2)	1 (Post-trade deferral)	version of TradeRegPublicationGrp
	TrdRegPublicationReason(2670) = 7 (Deferral due to "Illiquid instrument")	component
SIZE SI flag (as per RTS	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) =	
[1)	1 (Post-trade deferral)	version of TradeRegPublicationGrp
	TrdRegPublicationReason(2670) = 5 (No public price quoted as order is above	component
	standard market size)	
	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) =	
RTS 2)	1 (Post-trade deferral)	version of TradeRegPublicationGrp
	TrdRegPublicationReason(2670) = 8 (Deferral due to "Size specific")	component
TPAC flag	TrdType(828) - existing field from 5.0	n/a (as full details)
	65 -> Package trade	
XFPH flag	TrdType(828) - existing field from 5.0	n/a (as full details)
	2 -> Exchange for physical	
LRGS deferral flag	New TrdRegPublicationGrp component with fields TrdRegPublicationType(2669) =	
	1 (Post-trade deferral)	version of TradeRegPublicationGrp
	TrdRegPublicationReason(2670) = 6 (Deferral due to "Large in scale")	component





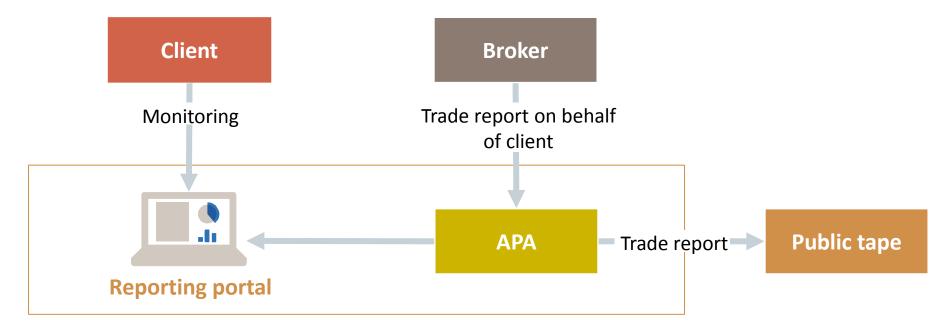
Meet The Trade Flags – Supplementary Deferral

Data element	Full FIX Details	FIX 4.x Details
LMTF deferral flag	RegulatoryReportType(1934)=11 (Limited details trade)	n/a (as full details)
FULF deferral flag	RegulatoryReportType(1934)=17 (Full Details of Earlier "Limited Details Trade")	n/a (as full details)
DATF deferral flag	RegulatoryReportType(1934)=12 (Daily aggregated trade)	n/a (as full details)
FULA deferral flag	RegulatoryReportType(1934)=18 (Full Details of Earlier "Daily Aggregated Trade")	n/a (as full details)
VOLO deferral flag	RegulatoryReportType(1934)=13 (Volume omission trade)	n/a (as full details)
FULV deferral flag	RegulatoryReportType(1934)=19 (Full Details of Earlier "Volume Omission Trade")	n/a (as full details)
FWAF deferral flag	RegulatoryReportType(1934)=14 (Four weeks aggregation trade)	n/a (as full details)
FULJ deferral flag	RegulatoryReportType(1934)=20 (Full Details of Earlier "Four weeks aggregation Trade")	n/a (as full details)
IDAF deferral flag	RegulatoryReportType(1934)=15 (Indefinite aggregation trade)	n/a (as full details)
VOLW deferral flag	RegulatoryReportType(1934)=16 (Volume Omission Trade, Eligible for Subsequent Enrichment in Aggregated Form	n/a (as full details)
COAF deferral flag	RegulatoryReportType(1934)=21 (Full Details in Aggregated Form of Earlier "Volume Omission Trade, Eligible for Subsequent Enrichment in Aggregated Form")	n/a (as full details)



"Assisted" Trade Reporting (aka "Sub-delegation")





How it works

- Investment manager has a commercial relationship with an APA
- Broker provides trade reports to the APA
- Broker flags the trades as having been reported on behalf of the client
- Investment manager retains responsibility for the trade reports

Benefits?

Avoids the need to pass certain execution fields to the investment manager (e.g. OTC flags)



Use of FIX Tag 29 (LastCapacity) under MiFID II

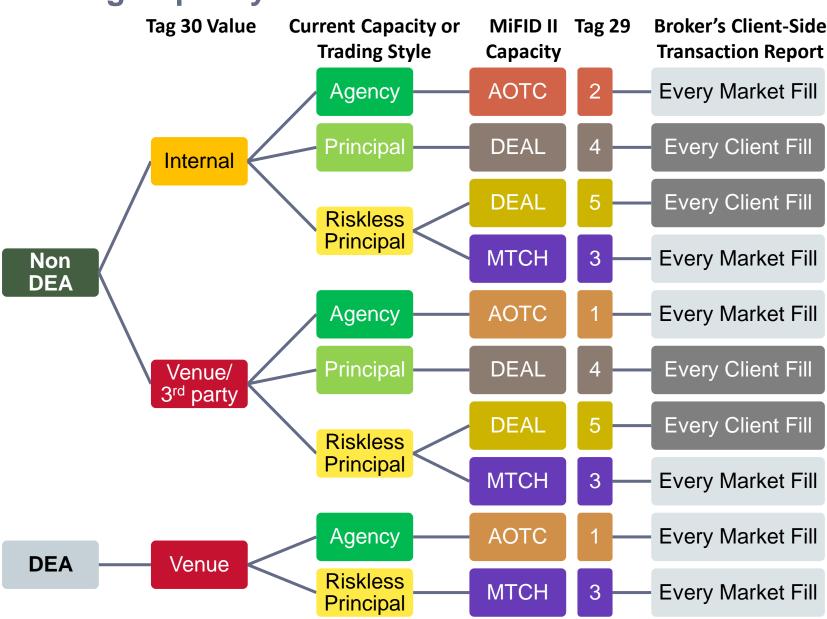


From MiFID II Transparency Working Group

Value & Description	Explanatory Guidance
1 (agent)	 An execution on a public market or from an external party (e.g. broker) conducted on an agency basis For MiFID II, this will be used to represent 'AOTC' capacity
2 (cross as agent)	 An execution between two clients of the executing firm, taking place within the firm, and conducted on an agency basis For MiFID II, this will be used to represent 'AOTC' capacity
3 (cross as principal)	 An execution on a public market or from an external party (e.g. broker) conducted on a matched principal basis in line with the MiFID definition of 'MTCH' capacity
4 (principal)	 An execution where the executing firm is committing capital (e.g. a risk fill or change in price on fills obtained from markets or external parties) Where the FIX execution message is being used to communicate an indicative price and quantity (for example when being used by the executing firm to write a swap), regardless of the source of liquidity For MiFID II, this will be used to represent 'DEAL' capacity
5 (riskless principal)	 An execution on a public market or from an external party (e.g. broker) conducted on a riskless principal basis For MiFID II, this will be used to represent 'DEAL' capacity



Dealing Capacity





Transaction Reporting & Execution Reporting



The Rules

- Market side reports from investment managers correlate with brokers' client side reports.
- MTCH, or AOTC (where not using the internal counterparty report each fill individually.
- DEAL reporting is at the level of 'client fill' which would generally be an average price execution at the level of the client's order.
- The broker will report their client-side report either using venue XOFF or their SI MIC.

The Requirements

- Brokers to pass dealing capacity up to their client to ensure the correct level of transaction reporting (i.e. individual fill vs. client fill).
- When dealing in DEAL capacity, brokers to distinguish between notices of execution and the 'client fill'.
- Brokers to provide the 'reporting MIC' as used in the transaction report 'venue' field, i.e.
 XOFF or an SI MIC.
- Brokers to provide OTC trade flags to the client for their transaction report...



Transaction Reporting & Execution Reporting



MTCH and AOTC (minus the internal counterparty)

- This will be identified using FIX tag 29 LastCapacity:
 - 29=1 AOTC (trading on venues or other brokers)
 - 29=2 AOTC (agency crosses)
 - 29=3 MTCH
- Any execution with 29=1, 2 or 3 should be considered to be transaction reportable with a venue of XOFF and with no OTC trade flags.

DEAL

- Identified using FIX tag 29 LastCapacity:
 - 29=4 DEAL (principal)
 - 29=5 DEAL (riskless principal)
- Ignore FIX execution reports with order status 'part fill' for the purposes of transaction reporting.
- Any FIX execution report that puts the order into a terminal state for the current trading day (i.e. DFD, filled, cancelled) is to be considered transaction reportable. This message will be expected to include the reporting MIC and any relevant OTC trade flags.



Work In Progress...

Trade Reporting

- 'On behalf of' for 'assisted' trade reporting.
- Finalising the 'RTS trees'.

Transaction Reporting

- Reporting MIC.
- Understanding of when to use an SI MIC vs. XOFF.
- AOTC with internal counterparty.
- Real world scenarios...



Get Involved, Stay Involved

We Need Help To...

- Validate the work.
- Communicate to the right people.
- Identify/work through scenarios.

The Tools...

- FIX website.
- Discussion forums.
- The working groups.



And finally...



GET ON WITH IT





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