APPENDIX 1: NASDAQ APA SERVICE DESCRIPTION

About APA

MiFID II introduces a requirement for all investment firms to publish OTC trades executed outside the rules of a trading venue. This requirement was initially introduced for shares in 2007 but will be extended to cover all asset classes with the introduction of MiFID II in January 2018 such as:

- All types of bonds incl. structured bonds
- Fixed income derivatives
- Equity derivatives
- Commodities
- Emission allowances
- FX derivatives

For each trade executed OTC, the investment firm is required to publish the price, volume and time of agreement along with various other data elements for the individual trade. This information has to be made public as close to real-time as possible.

The local competent authority can authorize deferral of publication. For shares, depository receipts, ETFs, and other similar instruments the deferral allowed may be between 60 minutes and end of next trading day, where the deferral allowed for bonds, structured finance products, commodities, emission allowances, and derivatives may typically be two days but can in certain cases be up to four weeks.

Investment firms trading OTC are required to publish these trades via an Approved Publication Arrangement. Being an APA requires certification by the local competent authority. Nasdaq APA is under supervision by the Swedish FSA.

These Reporting Guidelines describe the use of Nasdaqs OTC Trade Publication service (Nasdaq APA). This document should be regarded as general instructions on how to report OTC Trades.

These Reporting Guidelines do not cover the transaction reports to the competent authorities mandated by law in the various jurisdictions for investment firms pursuant to Markets in Financial Instruments Directive ("MiFID").

General Nasdaq APA information

Nasdaq APA offers clients a service for investment firms and Systematic Internalisers to meet their OTC post-trade transparency requirements in accordance with MiFID II. Nasdaq's APA service covers all relevant instruments subject to the OTC publication requirement, i.e. not only all asset classes but also all covered EU securities. Customers will therefore be able to use the Nasdaq APA for all their OTC trades to be published.

The APA services will be based on the INET system infrastructure – the same set-up used for manual trades in Nordic listed equities. Most existing exchange customers will enjoy significant benefits from knowledge of technology and connectivity already in place. Customers can also make use of Genium INET for publication of OTC trades in cash bonds listed on Nasdaq markets and certain derivatives eligible for CCP clearing at Nasdaq Clearing.

This means clients can submit trades for publication via the following protocols:

- FIX 5.0 (INET, all instruments)
- FIX 5.0 or OMnet for Genium INET (Cash bonds listed on Nasdaq exchanges and derivatives to be CCP cleared at Nasdaq Clearing)

Customers can also send OTC trade reports manually by using the relevant Nasdaq GUI available, i.e. Trading Workstation (Genium INET) and Nordic Workstation (INET).

OTC trade reports sent to the Nasdaq APA will be published via Nasdaq's data feed which provides extensive global coverage. All trades will also be published on Nasdaq's APA website.
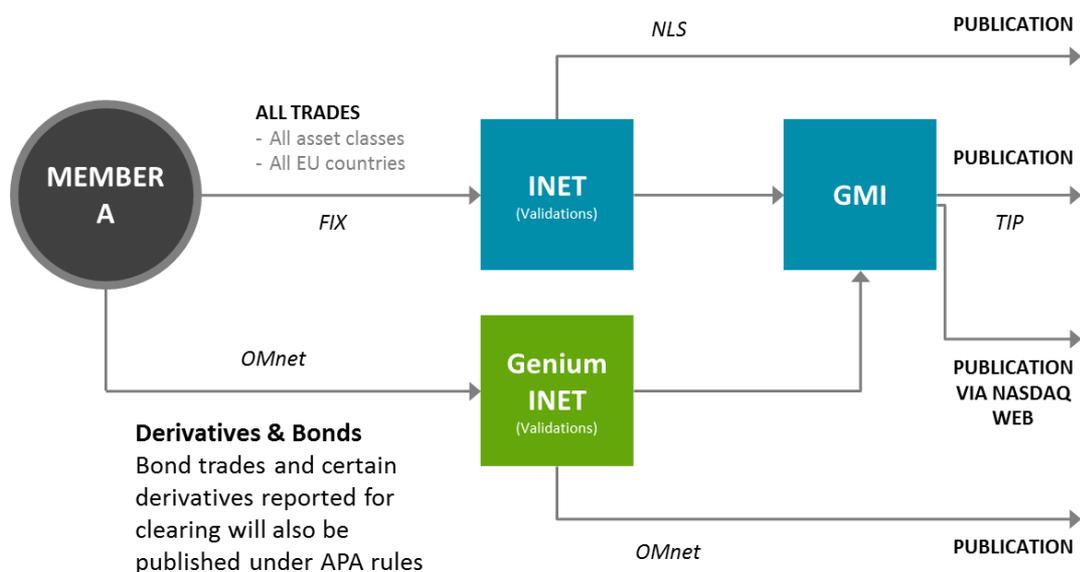
The APA will ensure proper automatic quality checks when receiving trade reports to minimize erroneous trades being sent to the market. If the APA receives a trade for publication that seems likely to be erroneous, the trade report will be rejected and sent back to the submitting customer for verification.

The service will support the use of deferred publication of trades where applicable. This will allow for the APA to administer deferrals on behalf of the customers instead of requiring all customers to administrate deferrals internally. Customers can send trades in real-time to the APA stating the trade should be deferred and the time of publication to be applied. The APA will then publish the trade at the end of the applicable deferral period.

The APA will be open for publication of OTC trades between 08:00 CET and 22:00 CET. OTC trade publication via Genium INET will only be open for trade publication in limited opening hours depending on the asset class of the security reported.

INET specific information

The INET trading system also support publication of OTC trades. INET supports publication of trades in all securities subject to OTC publication under MiFIR/MiFID2. The specifications of the FIX protocol used for submitting OTC trades for publication via INET can be found on Nasdaqs website.

Process for publication of OTC trades in INET (all instuments)

1. The deal: The participants conclude a deal outside the exchange rules. It can be an OTC trade or an SI trade.

2. The counterparties are responsible for determining the counterparty which is required by MiFID to perform the transparency reporting (publication).

   For RTS2 instruments, trades must be reported within 15 minutes after execution through a supported interface. For RTS1 instruments trades must be reported within 1 minute after execution.

   All mandatory fields must be entered in correct format before the transaction can be submitted. Mandatory fields in FIX are specified in the protocol description.

3. If the transaction is approved then a message is sent back to the participants in the deal saying that the transaction was approved. The transaction contains a unique identification code (Nasdaq assigned trade id).

   In any subsequent communication with the reporting firm regarding the reported transaction the unique identification code shall be included.

4. Once the transaction is approved it will automatically be published via GMI (TIP), on the APA web site and NLS which will make the transaction public through the Nasdaq feeds. APA trades are labeled with "XOFF" or "SINT". However a customer has the possibility to choose XOFF Non-Standard or SI Non-standard if the trade report is not executed in standards terms.

5. Deferrals are applied per instrument according to applicable deferrals rules, see below.

Validations

On receipt of an OTC trade report, the APA shall be able to identify trade reports that are incomplete or contain information that is likely to be erroneous, and request a confirmation or re-submission in case of erroneous information. This means the APA must check that the required fields are filled in, and check that the price and volume is likely to be correct, taking into account a number of factors such as asset class and liquidity.

Nasdaq imports the ESMA database of all listed securities on a daily basis. The APA accepts all Instruments which is in the ESMA database as well as Instrument identification codes that are not in the ESMA database. OTC trades reported in securities found in the ESMA database, will be subject to a detailed validation. The price reported in the trade will be benchmarked agains a reference price. The reference price will usually be the last known closing price for the instrument. The deviations allowed from this reference price depends on the asset class and liquidity of the instrument. The following table shows the allowed deviations when the APA service is launched. This set-up can however be updated if needed:

Asset Class, (MiFIR ID)	Liquid instruments		No liquid market instruments	
Shares (SHRS, ETFS, DPRS, CRFT, OTHR)	-10%	+10%	-25%	+25%
All bonds except ETCs and ETNs and structured finance products (BOND)	-5%	+5%	-15%	+15%
ETCs and ETNs bond types (ETCS, ETNS)	-5%	+5%	-15%	+15%
Securitised derivatives (SDRV)	-5%	+5%	-15%	+15%
Interest rate derivatives (INTR)	-5%	+5%	-15%	+15%
Foreign Exchange Derivatives (CURR)	-5%	+5%	-15%	+15%
Equity derivatives (EQUI)	-5%	+5%	-15%	+15%
Commodity derivatives (COMM)	-5%	+5%	-15%	+15%
Credit derivatives (CRDT)	-5%	+5%	-25%	+25%
Contract for differences (CFDS)	-5%	+5%	-15%	+15%
C10 derivatives	-5%	+5%	-15%	+15%
Emission allowance derivatives (EMAL)	-5%	+5%	-15%	+15%
Emission allowances (EMAL)	-5%	+5%	-15%	+15%

Further, the reported volume will undergo a similar check. The applied checks of reported volume will be performed according to the following table:

Type of instrument	Volume/Quantity measure	Liquid Max quantity	Non-Liquid Max quantity
Shares (SHRS, ETFS, DPRS, CRFT, OTHR)	Number of contracts	€100.000.000	€50.000.000
All bonds except ETCs and ETNs and structured finance products (BOND)	Total nominal value of debt instruments traded	€500.000.000	€200.000.000
ETCs and ETNs bond types (ETCS, ETNS)	Number of units traded	€50.000.000	€50.000.000

Type of instrument	Volume/Quantity measure	Liquid Max quantity	Non-Liquid Max quantity
Securitised derivatives (SDRV)	Number of units traded	€100.000.000	€100.000.000
Interest rate derivatives (INTR)	Notional amount of traded contracts	€100.000.000	€100.000.000
Foreign Exchange Derivatives (CURR)	Notional amount of traded contracts	€500.000.000	€200.000.000
Equity derivatives (EQUI)	Notional amount of traded contracts	€200.000.000	€50.000.000
Commodity derivatives (COMM)	Notional amount of traded contracts	€250.000.000	€100.000.000
Credit derivatives (CRDT)	Notional amount of traded contracts	€200.000.000	€100.000.000
Contract for differences (CFDS)	Notional amount of traded contracts	€50.000.000	€250.000.000
C10 derivatives	Notional amount of traded contracts	€100.000.000	€100.000.000
Emission allowance derivatives (EMAL)	Tons of Carbon Dioxide equivalent	€250.000.000	€100.000.000
Emission allowances (EMAL)	Tons of Carbon Dioxide equivalent	€125.000.000	€100.000.000

Price and volume checks is only applied on those ISIN codes that are in ESMA's database at the time of reporting. Transactions holding ISIN codes not in the ESMA database will be accepted and published immediately if they pass a basic check of price (below SEK 100.000 or equivalent) and volume.

If a trade is rejected due to failing any of the above mentioned validations, a reject message is sent back. The customer is then asked to correct any erroneous information and re-submit the trade for validation and publication. If all information is correct in situations where the trade is initially rejected, the trade can be re-sumitted using the original reference number and it will then be published even if it fails the validations.

Deferrals

The APA supports different forms of deferred publication.

1. The customer can set a time of publication when submitting the OTC trade report. INET will then publish the trade according to this specified time and set flags accordingly.

2. The customer can choose to use standard deferral types. For RTS1 instruments, the standard ESMA deferral regime applied. For RTS 2 instruments, the standard deferral time is T+2.

Cancellations and Amendments

Cancellation/amendments shall be done via cancelling the original transaction and submitting a new trade report, where the new amended transaction has a reference id to the one which was cancelled. It is possible to amend all reported fields except the Time of Agreement.

Support for APA functionality in INET

Operator support the APA related functionality in INET. In case customers need help to amend or cancel trades due to technical problems for their own systems, Operator can be contacted on operator@nasdaq.com.

Genium INET specific information

A subset of instruments are also available for OTC publication via Nasdaq APA in Genium INET. This applies to Bonds, Fixed Income Derivatives and Equity Derivatives.

Process for OTC trades in Nasdaq-listed bonds in Genium INET

1. The deal: The participants conclude a deal outside the exchange rules. It can be an OTC trade or an SI trade.

2. The counterparties are responsible for determining the counterparty which is required by MiFID to perform the transparency reporting (publication).

   Trades must be reported within 15 minutes after execution through a Nasdaq supported interface; Trading Workstation, Q Port, OMNet API or FIX.

   All mandatory fields must be entered in correct format before the transaction can be submitted. Mandatory fields are specified in the relevant (OMnet or FIX) protocol [description](#).

   The validation: When the sender submits the transaction, Genium INET shall validate that all mandatory fields have been filled in, that the format is correct and that the price and quantity is are within the allowed range.

   If the price or quantity is outside the allowed range the transaction is rejected.

3. If the transaction is approved then a message is sent back to the participants in the deal saying that the transaction was approved. The transaction shall contain a unique identification code (Nasdaq assigned trade id).

4. Once the transaction is approved it will automatically be published via GMI (TIP), OMNet, the APA web site and FIX which will make the transaction public through the Nasdaq feeds. APA trades are labeled with "XOFF" or "SINT" depending on the trade type used.

5. If selected, standard deferrals are applied per instrument according to applicable deferrals for exchange trades.

Process for OTC trades in listed Fixed Income Derivatives in Genium INET

1. The deal: The participants conclude a deal outside the exchange rules. It can be an OTC trade or an SI trade.

2. The reporting:

   a) If the trade is a dealer-to-client transaction then the broker-dealer (member) submits a two-sided trade report to Nasdaq.

   b) If the trade is an interbank transaction, then either the inter-dealer broker (member) submits a two-sided trade report to Nasdaq, or each dealer (member) submits its side as a one-sided trade report.

   Trades must be reported for APA publication within 15 minutes after execution through a Nasdaq supported interface; Trading Workstation, Q Port, OMNet API or FIX. All mandatory fields must be entered in correct format before the transaction can be submitted.

3. The validation: When the sender submits the transaction, Genium INET shall validate that all mandatory fields have been filled in, that the format is correct and that the price and quantity are within the allowed range.

   If the price or quantity is outside the allowed range for the instrument the transaction shall be rejected.

4. Approval: If the transaction is approved then a message (BD6) is sent back to the participants in the deal saying that the transaction was approved. The transaction shall contain a unique identification code (Nasdaq assigned trade id).

   An approved OTC transaction goes into the clearing system. It will not update high, low, last or turnover statistics for the exchange but it will contribute to the Open Interest statistics for the CCP.

5. Once the transaction is approved it will automatically be published via GMI (TIP), OMNet, the APA web site and FIX which will make the transaction public through the Nasdaq feeds. APA trades are labeled with "XOFF" or "SINT" depending on the trade type used.

6. If selected, standard deferrals are applied per instrument according to applicable deferrals for exchange trades.

Process for OTC trades in listed Equity Derivatives in Genium INET

1. The deal: The participants conclude a deal outside the exchange rules. It can be an OTC trade or an SI trade.

2. The reporting:

    c) If the trade is a dealer-to-client transaction then the broker-dealer (member) submits a two-sided trade report to Nasdaq.

    d) If the trade is an interbank transaction, then either the inter-dealer broker (member) submits a two-sided trade report to Nasdaq, or each dealer (member) submits its side as a one-sided trade report.

    Trades must be reported for APA publication within 15 minutes after execution through a Nasdaq supported interface; Trading Workstation, Q Port, OMNet API or FIX. All mandatory fields must be entered in correct format before the transaction can be submitted.

3. The validation: When the sender submits the transaction Genium INET shall validate that all mandatory fields have been filled in, that the format is correct and that the price and quantity is are within the allowed range.

    If the price or quantity is outside the allowed range for the instrument the transaction shall be rejected.

4. Approval: If the transaction is approved then a message (BD6) is sent back to the participants in the deal saying that the transaction was approved. The transaction shall contain a unique identification code (Nasdaq assigned trade id).

    An approved OTC transaction goes into the clearing system. It will not update high, low, last or turnover statistics for the exchange but it will contribute to the Open Interest statistics for the CCP.

5. Once the transaction is approved it will automatically be published via GMI (TIP), OMNet, the APA web site and FIX which will make the transaction public through the Nasdaq feeds. APA trades are labeled with "XOFF" or "SINT" depending on the trade type used.

6. If selected, standard deferrals are applied per instrument according to applicable deferrals for exchange trades.

Support for APA functionality in Genium INET

Trading Operations support the APA related functionality in Genium INET. In case customers need help to amend or cancel trades due to technical problems for their own systems, Trading Operations can be contacted on tradingoperations@nasdaq.com or +46 8 405 6660.

Trade Types available for OTC trade publication in Genium INET

The following trade types are available for publication of OTC for cash bonds.

Trade Report ID	APFI	APSI	ANFI	ANSI	AVGP	AVSI	OTLP	OTPT
Description	OTC-Std APA Disclosed,	SI-Std APA Disclosed,	OTC-non-Std APA Disclosed,	SI-non-Std APA Disclosed,	OTC-Std Duplicate	SI-Std Duplicate	OTC-Loan Payment	OTC-Primary Transaction
Single-Instrument / Multi-Leg Use	Single-instrument	Single-instrument	Single-instrument	Single-instrument	Single-instrument	Single-instrument	Single-instrument	Single-instrument
One-/Two-Sided Reporting Mode	Both	Both	Both	Both	Both	Both	Both	Both
OMnet ext_t_state_c	71	72	73	74	75	76	77	78
FIX OffBookType (20202)	71	72	73	74	75	76	77	78
Updates Trade Statistics	No	No	No	No	No	No	No	No

The following trade types are available for OTC trade reporting for derivatives

Trade Report ID	Fixed Income Derivatives				Equity Derivatives	
	OTFI	SI	OTPF	SIPF	OFF	SI
Description	OTC Disclosed	Systematic Internaliser Disclosed	OTC Disclosed Package	Systematic Internaliser Disclosed Package	OTC, Disclosed	Systematic Internaliser, Disclosed
Single-Instrument / Multi-Leg Use	Both	Both	Both	Both	Both	Both
One-/Two-Sided Reporting Mode	Both	Both	Both	Both	Both	Both
OMnet ext_t_state_c	113	155	118	119	154	155
FIX OffBookType (20202)	113	155	118	119	154	155
Updates Trade Statistics	No	No	No	No	No	No

Publication

Publication of APA trades via Genium Consolidated Feed

All APA trades both from INET and Genium Inet will be redistributed via the Genium Consolidated Feed (GCF).

All APA trades which can be mapped to an instrument listed either on Nasdaqs Nordic Equity, Fixed Income, Derivatives or Commodities market will be distributed with GCF instrument id used for that individual instrument as an External Trade Report message as part of Nordic Asset classes packaged sent out from GCF.

For APA trades which are not listed on any of Nasdaq Nordic Markets the trade will also be distributed via GCF as External Trade Report message. The reference data available for these trades will be limited to information provided by the reporter of the trade. The Non-Nasdaq listed APA trades will be available in GCF to all asset classes based on request on reasonable commercial terms

Publication of APA trades via Nasdaq Nordic Last Sale

APA trades from INET will be available in the Nordic Last Sale ITCH feed in the OTC Trade Message. NLS OTC Trade Message will contain limited reference data.

Publication of Deferrals

Daily and weekly APA reports containing the deferrals will be available for APA customers via File Delivery Service (FDS). Access to reports in FDS is given free of charge for members and other participants based on requests. Access is not per individual user but on company level and provides access to these daily and weekly APA reports only.

Publication of APA trades in Nasdaq website

All trades published the Nasdaq APA is published on the Nasdaq APA website to be found here.