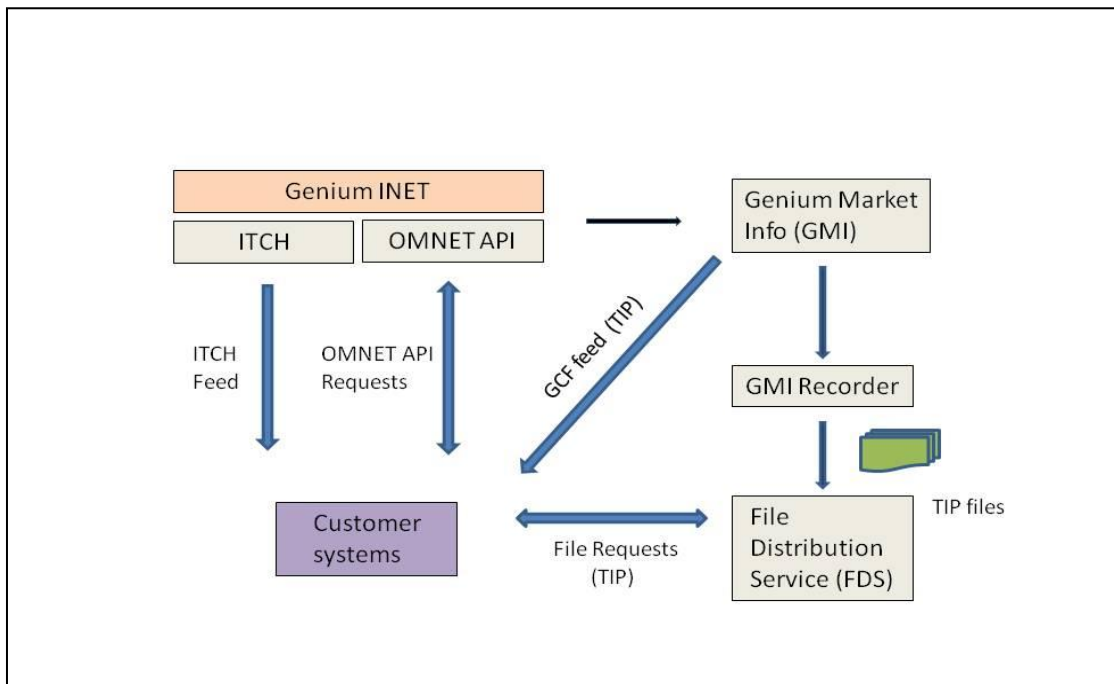# Reference Data Distribution

Genium INET

1 General

Purpose of this document is to support customers with their Genium INET reference data related decisions by providing a quick tour on all essential features and alternatives based on NASDAQ OMX Nordic services. Our intention is also to highlight the differences between the alternatives, and thereby make customers more aware of the issues they may have to tackle when moving from one solution to another.

Since this is just an overview, there are lots of other information and materials available. Therefore, if you cannot find something in this document or with the help of it, please contact us. The contact details are at the end of this document.

Latest update April 25th 2013. The latest version of this document is available on this page.

2 Overview

The Genium INET reference data sources and data flows overview:

Genium INET is the derivatives, fixed income and commodities trading platform. It provides access to reference data either via multicast (UDP) **Derivatives ITCH** feed or the direct data requests utilizing **OMNET API** interface.

Genium Market Info (GMI) is the consolidated data feed system. The feed it provides is called Genium Consolidated Feed (GCF), and it contains complete basic data for all of the Genium INET markets.

File Distribution Service (FDS) is the HTTPS based file format and size independent download service used for distributing files from several source systems. Files contain also the Genium INET markets and instruments related reference data.

Summary 1: Sources overview

	OMNET API	Derivatives ITCH	GCF	FDS
Source/interface type	API Query	Multicast data feed, UDP	Unicast data feed	HTTPS, file download
Data Format	Qry format	ITCH	TIP	TIP
Intraday updates	Yes	No	No	No
Connection	Leased	Leased	Leased	Web (or leased)
Access hours (CET)	6:30 – 1:00 (day +1)	1:40 – 1:00 (day +1)	6:00 – 23:30	1:00-23:30
Bandwidth recommendations	3 Mbps	35 Mbps	4,5 Mbps	Not specified
Access managed by	Member services	Member services	GDP Products team	GDP Products team
Technical support	Genium INET First line	Genium INET First line	GCF First Line	GCF First Line

Summary 2: Daily dataflow timeline

Time, CET	System	Action	Data / remarks
1:00	FDS	System opens	Only yesterday's files available till the morning
1:40	ITCH for Genium INET	ITCH feed started	Contains limited reference data for derivatives and fixed income derivatives markets for today. For failovers also re-requesting possibility available.
~3:30	FDS	Genium INET ITCH logs updated	Yesterday's ITCH log available (limited reference data set, see above)
6:00	GMI	System opens externally	All the Genium INET data available in GCF feed in TIP format
6:30	Genium INET	System opens externally	External data queries possible via OMNET API. All the Genium INET data available.
6:30	GMI recorder	Receives data from GCF and generates the basic data files, files forwarded to FDS	All the Genium INET basic data in FDS in TIP files
~6:30	FDS	GCF basic data files available	TIP basic data files can be requested
7:54	GMI recorder restarted	Regenerates the basic data files and forwards the files to FDS	Note: content of the files is not changing but file timestamps are.
23:30	FDS	System close	Files not accessible
23:30	GMI	System close	GCF feed not accessible
1:00 day+1	Genium INET	External access closed	OMNET API queries not available
1:00 day+1	Derivatives ITCH	System halted	ITCH feed not accessible (data feed stops after market close)

3 Content Differences

Depending of the source the content in the data which are available will be different. Below is a list of information which is in one or more of the sources but not in all.

	ITCH	GCF	FDS	OMNET API
Number of levels	All levels of the order book	5 levels of the order book	1 level of the order book	5 levels of the order book
Markets	Both fixed income and equity derivatives	Need two different feeds to get fixed income and equity derivatives	Need different files to get both fixed income and equity derivatives	Both fixed income and equity derivatives
Open interest	No	Yes	Yes	Yes
Margin Price	No	Yes	Yes??	Yes
Aggregated volume	No	Yes	Yes	No
Settlement Price	No	Yes	Yes	Yes
Official closing price	No	Yes	Yes	No
High/Low Price	No	Yes	Yes	No
Open Price	No	Yes	Yes	No
Reported trades	No	Yes	Yes	Yes

4 Reference Data from Different Sources

Below are some tables which show which reference data are available from the different sources.

Instrument information

	Description	ITCH	GCF	FDS	OMNET API
Symbol	Ticker symbol, code or abbreviated name.	√	√	√	√
Name	Name or description.		√	√	√
Isin		√	√	√	√
Derivatives Type	Refers to if the instrument is an option, futures, forward etc.	√	√	√	√
Trading currency		√	√	√	√
Number of decimals in price		√	√	√	√
Number of decimals in nominal value		√	√		√
Nominal Value		√	√	√	√
Legs in combination			√	√	√
Contract Size	States the number of underlying shares in a contract for derivatives based on shares.		√	√	√
Settlement type	Refers to if the instrument settles in cash, physical etc.		√	√	√
Exercise type	Refers to if the instrument		√	√	√

	is a European call, American put, Binary call etc.				
Strike Price	Strike price		√	√	√
Issuer Id	Issuer identity.		√	√	√
Price Type	Price type (monetary amount or yield)		√	√	√
Volume Dimension			√	√	√
Listing Date			√	√	√
Last Trading Date			√	√	√
Security type	Refers to if the instrument is a derivative, standard combination etc.		√	√	√
Exercise to Date	Maturity date		√	√	√
No of Underlying Instruments	The number of underlying instruments or the number of legs for combinations.		√	√	√

Market Information

	Description	ITCH	GCF	FDS	OMNET API
Round lot information		√	√	√	√
Tick size information		√	√	√	√
Market Id		√	√	√	√
Exchange Id			√	√	√
Information about	Pre/post trade anonymity,		√	√	√

market setup	Automatch, Tradereporting allowed etc.					

Underlying information

	Description	ITCH	GCF	FDS	OMNET API
Underlying Id	Refers to the idCode of the underlying tradable or non-tradable security.		√	√	√
Underlying ISIN	Source identifier for the underlying instrument		√	√	√
Underlying Instrument Type	Underlying instrument type.		√	√	√
Underlying Sign			√	√	√
Underlying Currency			√		√

5 Documentation

Genium INET / OMNET API

- Market model documentation here
- All Connectivity and Protocols documentation here
- OMnet Message Reference Guide here

Derivatives ITCH

- ITCH Multicast Description here
- ITCH 1.0.6 Protocol Specification here

GMI / Genium Consolidated Feed

- All GCF documentation here
- TIP 2.4.4 Protocol Specification here

File Delivery Service

- All FDS documentation here
- FDS Guidelines here
- File format specification here
- File / Market mapping here

6 Contacts

Technical issues related to INET, GCF and FDS

First Line Support

Available on trading days:
Between 07:00 – 18:30 CET
Tel. +46 8 405 6580, Operator@nasdaqomx.com

Technical issues related to OMNET API,

Genium INET First Line Support

Available on trading days:
Between 07:00 – 18:30 CET
Tel. +46 8 405 6750, TechnicalSupport@nasdaqomx.com

Product information related to ITCH, GCF and FDS

GDP Sales: DataSales@nasdaqomx.com
GDP Products: DataProducts@nasdaqomx.com

INET (Cash equity) and ITCH access

Member Services: ms.inet@nasdaqomx.com

Genium INET and OMNET API

Member Services:

Deriv., Fixed Inc. and Commodities: ms.geniuminet@nasdaqomx.com
N2EX: ms.n2ex@nasdaqomx.com
NLX: memberservices@nlx.co.uk

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