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Technical Specifications - Euronext Cash and Derivatives Markets

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PREFACE

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DOCUMENT HISTORY

The following table provides a description of all changes to this document.

VERSION NO.	DATE	CHANGE DESCRIPTION
1.0	Sept 2016	Optiq® Market Data Gateway External User Acceptance (EUA) – Virtual and Physical – Environment feed configuration details.
1.1	Nov 2016	Optiq® Market Data Gateway External User Acceptance (EUA) – Virtual and Physical – File services access for the V-EUA
1.2	March 2017	Retail Matching Facility renamed into Best of Book. BBBO changed into FBMU for Equities/Funds/Fixed Income and Bourse de Luxembourg. Change of the layout of the feed configuration.
1.3	April 2017	Correct made to Multicast Group IP for the 1G channel - Index Options Netherlands
1.4	November 2017	New Channels added for APA SI Quotes and APA Trade Publication to Optiq Segment – 10, Trade Reporting and Publication.
1.5	June 2018	Removal of MDG Set Of Channels ID 12 – Trade Reporting And Publication
1.6	July 2018	New Channels added for ETF Access to Optiq Segment – 2, Funds. Removal MDG Set Of Channels ID 10 - Societe Generale Systematic Internaliser (SI)
1.7	July 2018	New Channels added for Best of Book (RMF) Funds.
1.8	July 2018	MDG Set of Channels 9 and 15 renamed for Euronext Dublin Integration.
1.9	November 2018	New Channel added for Euronext Block.
2.0	November 2018	Changes made to Derivatives Feed Configuration for Optiq Step 3. MDG Set of Channels 18, 19 and 28 removed. Introduction of new Optiq Segments for Equity Derivatives, Index Derivatives and Financial Derivatives. MDG Set of Channels 20 to 26 renamed.
2.1	January 2019	Changed the amount of Partitions for Equity Derivatives from 2 to 3 and For Index Derivatives from 2 to 1.
2.2	October 2019	Removal of the Derivatives 100M FBMU channel IDs.

VERSION NO.	DATE	CHANGE DESCRIPTION
2.3	January 2020	Addition of Optiq Segment 16 for the Irish Bonds and Funds
2.4	February 2020	Addition of MDG Set of Channels 10 for Equities Norway and 12 for Fixed Income Nordic ABM
2.5	July 2021	Addition of MDG Set of Channels 34 for Forex
2.6	September 2021	Adding 1 Warrants partition configuration
2.7	September 2021	Document version alignement to Production document version
3.0	December 2021	New target specifications of the new Euronext Data Centre in Aruba Bergamo ITALY
5.16.0	June 2022	**change of version numbering logic** Addition of new cash markets EQUities and ETFs/Funds sets-of-channels for Borsa Italiana integration: “18” (Equities Italy), “45” (Italy GEM), “39” (Italy ETF plus), “19” (Italy TAH)
5.18.0	September 2022	Adjustment of naming for MDG Set of Channels “19”, “39” and “45” Decommissioning of FBOU.100M Real Time for MDG Set of Channels “1” and “32” Decommissioning of FBMU.100M Real Time for MDG Set of Channels “4”
5.23.0	March 2023	Addition of new set of channels for Borsa Italiana integration: “40” (Fixed Income Italy – MOT/ExtraMOT), “41” (Warrants and Certificates Italy (Sedex)) “42” (Fixed Income ETLX (Bond-X)), “43” (Warrants and Certificates ETLX (Cert-X)) and “44” (Equities ETLX)
5.23.1	March 2023	Correction of the following Partition IDs: - MDG Set of Channels ID 43 – B Side IP
5.23.2	April 2023	Correction of the following Partition IDs: - MDG Set of Channels ID 41 – FBMU Snapshot channel -> Missing 100M FBMU Snapshot channel - MDG Set of Channels ID 42 – FBOU Snapshot Channel – Correction of 1G Feed ID - MDG Set of Channels ID 43 – FBMU Snapshot channel -> Deletion of incorrect real-time 1G FBMU channel
5.23.3	May 2023	- Correction on a typo for several IP addresses: in the last 3 digits of IP addresses it should not start with ‘0’. Example: ‘224.0.212.042’ is replaced by ‘224.0.212.42’ - Mention to ‘SFTI’ removed as it is replaced by ‘CMC’ since the migration
5.23.4	June 2023	- MDG Set of Channels ID 44 – FBMU 1G Snapshot channel -> Correction of ID
5.28.0	July 2023	- Addition of new MDG Set of Channels IDs: 28 (Index Futures Italy), 36 (Equity Derivatives Italy) and 37 (Index Options Italy) - Removal of section “Optiq Segment – 13. Financial Derivatives Real-Time and Snapshot Configuration” as the Optiq Segment is no longer active

VERSION NO.	DATE	CHANGE DESCRIPTION
5.33.0	February 2024	- Removal of Optiq Segment 15 (Forex) and the corresponding MDG Set of Channel ID 34 (Forex) which is not in use - Removal of 100M FBMU in Real Time for MDG Set of Channels IDs 16, 20, 21, 22, 23, 24, 25, 26, 27, 28, 36 and 37
5.353.0	January 2025	- Addition of new MDG Set of Channels ID: 38 - Commodity Energies (Power)
5.355.0	April 2025	- Removal of Optiq Segment 10 (Trade Reporting and Publication Real-Time and Snapshot Configuration) and the corresponding MDG Set of Channels IDs 29 and 30 (APA SI Quotes and APA Trade Publication) which are not used
5.356.0	May 2025	- Removal of [ETFP] MIC from "MDG Set Of Channels ID" = 39 - Addition of [ETFP] MIC to "MDG Set Of Channels ID" = 1 - In Optiq Segment 2, Updated title for "MDG Set Of Channels ID" = 39 to ATFX
6.361.0	October 2025	- Addition of new "MDG Set of Channels ID" = 46 (Equities IPO France)
6.367.0	July 2026	- Addition of new Euronext ATHENS channel MDG Set of Channels ID 51 – Equities Greece - Addition of new Euronext ATHENS channel MDG Set of Channels ID 50 – Funds ETF Greece - Addition of new Euronext ATHENS channel MDG Set of Channels ID 53 – Index Derivatives Greece - Addition of new Euronext ATHENS channel MDG Set of Channels ID 52 – Equity Derivatives Greece
6.367.1	July 2026	- Corrected typo in Section 1.1: Optiq Segments, Partitions and MDG Set of Channels
6.369.0	August 2026	- Reviewed formatting of the document - Removed reference to Financial Derivatives / Curency Derivatives, decommissioned - Removed MDG set of Channels 32 – ETF Access, decommissioned
6.369.1	September 2026	- added Disclaimer in the Preface to the document. - Removed MDG Set of Channels 33 – Euronext Block, decommissioned
6.371.0	October 2026	- Added second partition for Optiq Segment 2: Funds, in pEUA

REFERENCE MATERIAL

The following document, which either should be read in conjunction with this document, or which provides other relevant information for the user:

- Optiq MDG Client Specifications - Euronext Cash and Derivatives Markets

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FURTHER INFORMATION

- For additional information please visit: www.euronext.com/optiq

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1. INTRODUCTION

This document provides all multicast addresses required to access the Euronext Optiq® Market Data Gateway External User Acceptance (EUA). Only shaped data is provided in the test environment. In order to ensure a Production-like test environment, separate IP addresses and ports are used to replicate the Production 'shaped' and 'unshaped' configuration.

The Euronext Optiq® Market Data Gateway Next Release-EUA (P-EUA) and the Current Release-EUA (V-EUA) environment are located in Bergamo. The P-EUA and V-EUA Source IP Address ranges are provided in this document and for P-EUA the Source IP Address ranges are provided for the live and standby systems as part of the High Availability mechanism. EUA High Availability (HA) and failover testing will only be conducted on the Next Release test environment (P-EUA).

Customers are requested to allow the V-EUA and P-EUA Source IP Address ranges through their Firewalls.

With the XML Standing Data files for the different Optiq Segments, customers will be able to map which instruments are available in which channel. The Optiq MDG feed configuration can be found at the end of each Standing Data file available and these will be provided on a daily basis in XML format. It is required to use the feed configuration details as part of the standing data files to connect to the feed on a daily basis.

In case a new partition is added to an Optiq Segment, customers are required to adapt to this type of change using the Optiq MDG Standing Data files that include the feed configuration details.

1.1 OPTIQ SEGMENTS, PARTITIONS AND MDG SET OF CHANNELS

Below you will find an overview of the available Optiq Segments, the number of partitions per Optiq Segment and the MDG Set Of Channels ID and Name that are part of each Optiq Segment. The Optiq Segments listed in the below table are also available in the real-time Standing Data (1007) messages and Contract Standing Data (1013) messages and also available in Standing Data files.

Optiq Segment	Number of Partitions	MDG Set of Channels ID	MDG Set of Channels Name
1. Equities	4	6	Equities Netherlands
		5	Equities France
		7	Equities Belgium
		8	Equities Portugal
		9	Equities Dublin
		10	Equities Norway
		11	Best of Book (RMF)
		18	Equities Italy [MTAA, MIVX, EXGM]
		44	Equities ETLX [ETLX]
		45	Italy GEM [BGEM]
		51	Equities Greece
2. Funds	~~1~~2	1	Funds Netherlands, France, Belgium, Portugal, Norway, Ireland, Italy [ETFP]
		39	Funds Italy [ATFX]
		31	Best of Book (RMF) Funds
		50	Funds ETF Greece

Optiq Segment	Number of Partitions	MDG Set of Channels ID	MDG Set of Channels Name
3. Fixed Income	1	2	Fixed Income
		12	Fixed Income Nordic ABM
		40	Fixed Income Italy (MOT/ExtraMOT)
		42	Fixed Income ETLX (Bond-X)
4. Warrants and Certificates	2	4	Warrants and Certificates
		41	Warrants and Certificates Italy (SEDEX)
		43	Warrants and Certificates ETLX (Cert-X)
5. Bourse de Luxembourg	1	3	Bourse De Luxembourg
9. Indices	1	13	Euronext Indices
		14	Euronext iNAVs
		15	Euronext Dublin Indices
14. Euronext Block	1	19	Italy TAH [XTAH][1]
		46	Equities IPO France[2]
16. Irish Bonds & Funds	1	35	Euronext Dublin Bonds and Funds
8. Commodity Derivatives	1	16	Commodity Derivatives
	1	38	Commodity Energies (Power)
11. Index Derivatives	1	23	Index Options France
		24	Index Options Netherlands
		25	Index Derivatives Other
		26	Index Futures France
		27	Index Futures Netherlands
		53	Index Derivatives Greece
12. Equity Derivatives	3	20	Equity Derivatives France
		21	Equity Derivatives Netherlands
		22	Equity Derivatives Other
		52	Equity Derivatives Greece

1.2 CHANNEL TYPES AND CHANNEL IDS

The Channel Types and Channel ID's that are available to each customer depend on the available bandwidth on customer connections to the CMC Network and the services that were selected in the connectivity order form. Depending on the Asset Class, the following Optiq MDG channel types are made available to customers:

1. Pre-trade

[1] While TAH -trading after hours- concerns equities instruments, it is hosted for technical reasons in the BLK (Blocks) Optiq segment
[2] While Equities IPO France concerns equities instruments, it is hosted for technical reasons in the BLK (Blocks) Optiq segment

   a. BBBO – Best Bid and Offer
   b. FBMU – Full Book by Price (using Market Update message) (includes Best Bid and Best Offer)
   c. FBOU – Full Book by Order (using Order Update message) (includes Best Bid and Best Offer)
2. Post Trade – REFT –Reference Data and Full Trade Information
3. Indices – REFI – Index Reference Data and Index messages
4. Irish Bonds & Funds – IBFR - Irish Bonds & Funds Reference Data
5. Euronext Blocks – EBLK – Blocks market segment data.

Please read chapter **2.1 TYPE OF MARKET DATA CHANNELS** of the Euronext Cash and Derivatives Markets. – Optiq MDG Client Specifications for more details.

1.3 ADDITION OF A NEW PARTITION

The Channel ID contains 5 numbers and is provided as a field in the Optiq MDG packet header.

1. The first number on the left is used to identify if the channel is a real-time channel (3 for V-EUA and 5 for P-EUA) or snapshot (4 for V-EUA and 6 for P-EUA)
2. The second number is n= the partition number -1, with n=0 for the first partition, n=1 for the second partition, etc.
3. The last three number xxx represent the last numbers on the right used for the Multicast Group IP.

Each partition as part of an Optiq Segment has a Feed A and a Feed B and uses a unique Source IP address from the ranges as specified below:

Feed A/B	Feed A	Feed B
Rendez-vous Point on Colocation	212.107.67.242	212.107.67.243
Rendez-vous Point on CMC	212.107.67.248/32	212.107.67.249/32
Current EUA IP Address range	212.107.91.0/25	212.107.91.128/25
Next EUA Primary IP Address range	212.107.90.0/25	212.107.90.128/25
Next EUA Secondary IP Address range	212.107.90.0/25	212.107.90.128/25

Customers are required to allow the whole range as specified above through their Firewalls to allow for the addition of a new partition within an Optiq Segment. In case of a new partition:

1. A new Source IP will be used for the new partition, the Multicast Group IP Addresses for Feed A and B remain unchanged for the new partition
2. A new Channel ID is defined as 1(n)xxx and is equal to the ports used for the new partition.

The Multicast Group IP addresses for Real-time and Snapshot, for Feed A and B are:

Environment	Channel ID	Real-Time/Snapshot	Multicast Group Feed A	Multicast Group Feed B
Current EUA	3(n)xxx	Real-Time	224.0.212.xxx	224.0.213.xxx
	4(n)xxx	Snapshot		
Next EUA	5(n)xxx	Real-Time		
	6(n)xxx	Snapshot		

2. OPTIQ SEGMENT – 1. EQUITIES REAL-TIME AND SNAPSHOT CONFIGURATION

2.1 MDG SET OF CHANNELS ID 6 – EQUITIES NETHERLANDS

Environment	VEUA and PEUA	MDGSetOfChannels ID	6
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Netherlands

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.120	VEUA 30120	VEUA 31120	VEUA 32120	VEUA 33120
Multicast Group IP Feed B	224.0.213.120	PEUA 50120	PEUA 51120	PEUA 52120	PEUA 53120
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.120	VEUA 40120	VEUA 41120	VEUA 42120	VEUA 43120
Multicast Group IP Feed B	224.0.213.120	PEUA 60120	PEUA 61120	PEUA 62120	PEUA 63120

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.121	VEUA 30121	VEUA 31121	VEUA 32121	VEUA 33121
Multicast Group IP Feed B	224.0.213.121	PEUA 50121	PEUA 51121	PEUA 52121	PEUA 53121
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.122	VEUA 30122	VEUA 31122	VEUA 32122	VEUA 33122
Multicast Group IP Feed B	224.0.213.122	PEUA 50122	PEUA 51122	PEUA 52122	PEUA 53122
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.121	VEUA 40121	VEUA 41121	VEUA 42121	VEUA 43121
Multicast Group IP Feed B	224.0.213.121	PEUA 60121	PEUA 61121	PEUA 62121	PEUA 63121

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.123	VEUA 30123	VEUA 31123	VEUA 32123	VEUA 33123
Multicast Group IP Feed B	224.0.213.123	PEUA 50123	PEUA 51123	PEUA 52123	PEUA 53123
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.124	VEUA 30124	VEUA 31124	VEUA 32124	VEUA 33124
Multicast Group IP Feed B	224.0.213.124	PEUA 50124	PEUA 51124	PEUA 52124	PEUA 53124
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.125	VEUA 30125	VEUA 31125	VEUA 32125	VEUA 33125
Multicast Group IP Feed B	224.0.213.125	PEUA 50125	PEUA 51125	PEUA 52125	PEUA 53125
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.123	VEUA 40123	VEUA 41123	VEUA 42123	VEUA 43123
Multicast Group IP Feed B	224.0.213.123	PEUA 60123	PEUA 61123	PEUA 62123	PEUA 63123

2.2 MDG SET OF CHANNELS ID 5 – EQUITIES FRANCE

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	5
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities France

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.110	VEUA 30110	VEUA 31110	VEUA 32110	VEUA 33110
Multicast Group IP Feed B	224.0.213.110	PEUA 50110	PEUA 51110	PEUA 52110	PEUA 53110
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.110	VEUA 40110	VEUA 41110	VEUA 42110	VEUA 43110
Multicast Group IP Feed B	224.0.213.110	PEUA 60110	PEUA 61110	PEUA 62110	PEUA 63110

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.111	VEUA 30111	VEUA 31111	VEUA 32111	VEUA 33111
Multicast Group IP Feed B	224.0.213.111	PEUA 50111	PEUA 51111	PEUA 52111	PEUA 53111
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.112	VEUA 30112	VEUA 31112	VEUA 32112	VEUA 33112
Multicast Group IP Feed B	224.0.213.112	PEUA 50112	PEUA 51112	PEUA 52112	PEUA 53112
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.111	VEUA 40111	VEUA 41111	VEUA 42111	VEUA 43111
Multicast Group IP Feed B	224.0.213.111	PEUA 60111	PEUA 61111	PEUA 62111	PEUA 63111

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.113	VEUA 30113	VEUA 31113	VEUA 32113	VEUA 33113
Multicast Group IP Feed B	224.0.213.113	PEUA 50113	PEUA 51113	PEUA 52113	PEUA 53113
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.114	VEUA 30114	VEUA 31114	VEUA 32114	VEUA 33114
Multicast Group IP Feed B	224.0.213.114	PEUA 50114	PEUA 51114	PEUA 52114	PEUA 53114
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.115	VEUA 30115	VEUA 31115	VEUA 32115	VEUA 33115
Multicast Group IP Feed B	224.0.213.115	PEUA 50115	PEUA 51115	PEUA 52115	PEUA 53115
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.113	VEUA 40113	VEUA 41113	VEUA 42113	VEUA 43113
Multicast Group IP Feed B	224.0.213.113	PEUA 60113	PEUA 61113	PEUA 62113	PEUA 63113

2.3 MDG SET OF CHANNELS ID 7 – EQUITIES BELGIUM (INCLUDING PUBLIC AUCTION MARKET)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	7
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Belgium (Including Public Auction Market)

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.100	VEUA 30100	VEUA 31100	VEUA 32100	VEUA 33100
Multicast Group IP Feed B	224.0.213.100	PEUA 50100	PEUA 51100	PEUA 52100	PEUA 53100
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.100	VEUA 40100	VEUA 41100	VEUA 42100	VEUA 43100
Multicast Group IP Feed B	224.0.213.100	PEUA 60100	PEUA 61100	PEUA 62100	PEUA 63100

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.101	VEUA 30101	VEUA 31101	VEUA 32101	VEUA 33101
Multicast Group IP Feed B	224.0.213.101	PEUA 50101	PEUA 51101	PEUA 52101	PEUA 53101
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.102	VEUA 30102	VEUA 31102	VEUA 32102	VEUA 33102
Multicast Group IP Feed B	224.0.213.102	PEUA 50102	PEUA 51102	PEUA 52102	PEUA 53102
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.101	VEUA 40101	VEUA 41101	VEUA 42101	VEUA 43101
Multicast Group IP Feed B	224.0.213.101	PEUA 60101	PEUA 61101	PEUA 62101	PEUA 63101

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.103	VEUA 30103	VEUA 31103	VEUA 32103	VEUA 33103
Multicast Group IP Feed B	224.0.213.103	PEUA 50103	PEUA 51103	PEUA 52103	PEUA 53103
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.104	VEUA 30104	VEUA 31104	VEUA 32104	VEUA 33104
Multicast Group IP Feed B	224.0.213.104	PEUA 50104	PEUA 51104	PEUA 52104	PEUA 53104
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.103	VEUA 40103	VEUA 41103	VEUA 42103	VEUA 43103
Multicast Group IP Feed B	224.0.213.103	PEUA 60103	PEUA 61103	PEUA 62103	PEUA 63103

2.4 MDG SET OF CHANNELS ID 8 – EQUITIES PORTUGAL

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	8
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Portugal

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.105	VEUA 30105	VEUA 31105	VEUA 32105	VEUA 33105
Multicast Group IP Feed B	224.0.213.105	PEUA 50105	PEUA 51105	PEUA 52105	PEUA 53105
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.105	VEUA 40105	VEUA 41105	VEUA 42105	VEUA 43105
Multicast Group IP Feed B	224.0.213.105	PEUA 60105	PEUA 61105	PEUA 62105	PEUA 63105

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.106	VEUA 30106	VEUA 31106	VEUA 32106	VEUA 33106
Multicast Group IP Feed B	224.0.213.106	PEUA 50106	PEUA 51106	PEUA 52106	PEUA 53106
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.107	VEUA 30107	VEUA 31107	VEUA 32107	VEUA 33107
Multicast Group IP Feed B	224.0.213.107	PEUA 50107	PEUA 51107	PEUA 52107	PEUA 53107
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.106	VEUA 40106	VEUA 41106	VEUA 42106	VEUA 43106
Multicast Group IP Feed B	224.0.213.106	PEUA 60106	PEUA 61106	PEUA 62106	PEUA 63106

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.108	VEUA 30108	VEUA 31108	VEUA 32108	VEUA 33108
Multicast Group IP Feed B	224.0.213.108	PEUA 50108	PEUA 51108	PEUA 52108	PEUA 53108
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.109	VEUA 30109	VEUA 31109	VEUA 32109	VEUA 33109
Multicast Group IP Feed B	224.0.213.109	PEUA 50109	PEUA 51109	PEUA 52109	PEUA 53109
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.108	VEUA 40108	VEUA 41108	VEUA 42108	VEUA 43108
Multicast Group IP Feed B	224.0.213.108	PEUA 60108	PEUA 61108	PEUA 62108	PEUA 63108

2.5 MDG SET OF CHANNELS ID 9 – EQUITIES DUBLIN

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	9
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Dublin

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.165	VEUA 30165	VEUA 31165	VEUA 32165	VEUA 33165
Multicast Group IP Feed B	224.0.213.165	PEUA 50165	PEUA 51165	PEUA 52165	PEUA 53165
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.165	VEUA 40165	VEUA 41165	VEUA 42165	VEUA 43165
Multicast Group IP Feed B	224.0.213.165	PEUA 60165	PEUA 61165	PEUA 62165	PEUA 63165

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.166	VEUA 30166	VEUA 31166	VEUA 32166	VEUA 33166
Multicast Group IP Feed B	224.0.213.166	PEUA 50166	PEUA 51166	PEUA 52166	PEUA 53166
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.167	VEUA 30167	VEUA 31167	VEUA 32167	VEUA 33167
Multicast Group IP Feed B	224.0.213.167	PEUA 50167	PEUA 51167	PEUA 52167	PEUA 53167
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.166	VEUA 40166	VEUA 41166	VEUA 42166	VEUA 43166
Multicast Group IP Feed B	224.0.213.166	PEUA 60166	PEUA 61166	PEUA 62166	PEUA 63166

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.168	VEUA 30168	VEUA 31168	VEUA 32168	VEUA 33168
Multicast Group IP Feed B	224.0.213.168	PEUA 50168	PEUA 51168	PEUA 52168	PEUA 53168
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.169	VEUA 30169	VEUA 31169	VEUA 32169	VEUA 33169
Multicast Group IP Feed B	224.0.213.169	PEUA 50169	PEUA 51169	PEUA 52169	PEUA 53169
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.168	VEUA 40168	VEUA 41168	VEUA 42168	VEUA 43168
Multicast Group IP Feed B	224.0.213.168	PEUA 60168	PEUA 61168	PEUA 62168	PEUA 63168

2.6 MDG SET OF CHANNELS ID 10 – EQUITIES NORWAY

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	10
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Norway

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.85	VEUA 30085	VEUA 31085	VEUA 32085	VEUA 33085
Multicast Group IP Feed B	224.0.213.85	PEUA 50085	PEUA 51085	PEUA 52085	PEUA 53085
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.85	VEUA 40085	VEUA 41085	VEUA 42085	VEUA 43085
Multicast Group IP Feed B	224.0.213.85	PEUA 60085	PEUA 61085	PEUA 62085	PEUA 63085

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.86	VEUA 30086	VEUA 31086	VEUA 32086	VEUA 33086
Multicast Group IP Feed B	224.0.213.86	PEUA 50086	PEUA 51086	PEUA 52086	PEUA 53086
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.87	VEUA 30087	VEUA 31087	VEUA 32087	VEUA 33087
Multicast Group IP Feed B	224.0.213.87	PEUA 50087	PEUA 51087	PEUA 52087	PEUA 53087
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.86	VEUA 40086	VEUA 41086	VEUA 42086	VEUA 43086
Multicast Group IP Feed B	224.0.213.86	PEUA 60086	PEUA 61086	PEUA 62086	PEUA 63086

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.88	VEUA 30088	VEUA 31088	VEUA 32088	VEUA 33088
Multicast Group IP Feed B	224.0.213.88	PEUA 50088	PEUA 51088	PEUA 52088	PEUA 53088
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.89	VEUA 30089	VEUA 31089	VEUA 32089	VEUA 33089
Multicast Group IP Feed B	224.0.213.89	PEUA 50089	PEUA 51089	PEUA 52089	PEUA 53089
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.88	VEUA 40088	VEUA 41088	VEUA 42088	VEUA 43088
Multicast Group IP Feed B	224.0.213.88	PEUA 60088	PEUA 61088	PEUA 62088	PEUA 63088

2.7 MDG SET OF CHANNELS ID 11 – BEST OF BOOK (RMF)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	11
Optiq Segment name	Equities	MDGSetOfChannelsName	Best of Book (RMF)

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.138	VEUA 30138	VEUA 31138	VEUA 32138	VEUA 33138
Multicast Group IP Feed B	224.0.213.138	PEUA 50138	PEUA 51138	PEUA 52138	PEUA 53138
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.139	VEUA 30139	VEUA 31139	VEUA 32139	VEUA 33139
Multicast Group IP Feed B	224.0.213.139	PEUA 50139	PEUA 51139	PEUA 52139	PEUA 53139
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.138	VEUA 40138	VEUA 41138	VEUA 42138	VEUA 43138
Multicast Group IP Feed B	224.0.213.138	PEUA 60138	PEUA 61138	PEUA 62138	PEUA 63138

2.8 MDG SET OF CHANNELS ID 18 – EQUITIES ITALY

Environment	V-EUA P-EUA	MDGSetOfChannels ID	18
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Italy

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.75	vEUA: 30075	vEUA: 31075	vEUA: 32075	vEUA: 33075
Multicast Group IP Feed B	224.0.213.75	pEUA: 50075	pEUA: 51075	pEUA: 52075	pEUA: 53075
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.75	vEUA: 40075	vEUA: 41075	vEUA: 42075	vEUA: 43075
Multicast Group IP Feed B	224.0.213.75	pEUA: 60075	pEUA: 61075	pEUA: 62075	pEUA: 63075

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.076	vEUA: 30076	vEUA: 31076	vEUA: 32076	vEUA: 33076
Multicast Group IP Feed B	224.0.213.076	pEUA: 50076	pEUA: 51076	pEUA: 52076	pEUA: 53076
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.077	vEUA: 30077	vEUA: 31077	vEUA: 32077	vEUA: 33077
Multicast Group IP Feed B	224.0.213.077	pEUA: 50077	pEUA: 51077	pEUA: 52077	pEUA: 53077
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.076	vEUA: 40076	vEUA: 41076	vEUA: 42076	vEUA: 43076
Multicast Group IP Feed B	224.0.213.076	pEUA: 60076	pEUA: 61076	pEUA: 62076	pEUA: 63076

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.126	vEUA: 30126	vEUA: 31126	vEUA: 32126	vEUA: 33126
Multicast Group IP Feed B	224.0.213.126	pEUA: 50126	pEUA: 51126	pEUA: 52126	pEUA: 53126
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.127	vEUA: 30127	vEUA: 31127	vEUA: 32127	vEUA: 33127
Multicast Group IP Feed B	224.0.213.127	pEUA: 50127	pEUA: 51127	pEUA: 52127	pEUA: 53127
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.126	vEUA: 40126	vEUA: 41126	vEUA: 42126	vEUA: 43126
Multicast Group IP Feed B	224.0.213.126	pEUA: 60126	pEUA: 61126	pEUA: 62126	pEUA: 63126

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.78	vEUA: 30078	vEUA: 31078	vEUA: 32078	vEUA: 33078
Multicast Group IP Feed B	224.0.213.78	pEUA: 50078	pEUA: 51078	pEUA: 52078	pEUA: 53078
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.79	vEUA: 30079	vEUA: 31079	vEUA: 32079	vEUA: 33079
Multicast Group IP Feed B	224.0.213.79	pEUA: 50079	pEUA: 51079	pEUA: 52079	pEUA: 53079
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.80	vEUA: 30080	vEUA: 31080	vEUA: 32080	vEUA: 33080
Multicast Group IP Feed B	224.0.213.80	pEUA: 50080	pEUA: 51080	pEUA: 52080	pEUA: 53080
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.78	vEUA: 40078	vEUA: 41078	vEUA: 42078	vEUA: 43078
Multicast Group IP Feed B	224.0.213.78	pEUA: 60078	pEUA: 61078	pEUA: 62078	pEUA: 63078

2.9 MDG SET OF CHANNELS ID 44 – EQUITIES ETLX

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	44
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities ETLX

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.30	vEUA:30030	vEUA:31030	vEUA:32030	vEUA:33030
Multicast Group IP Feed B	224.0.213.30	pEUA:50030	pEUA:51030	pEUA:52030	pEUA:53030
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.30	vEUA:40030	vEUA:41030	vEUA:42030	vEUA:43030
Multicast Group IP Feed B	224.0.213.30	pEUA:60030	pEUA:61030	pEUA:62030	pEUA:63030

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.33	vEUA:30033	vEUA:31033	vEUA:32033	vEUA:33033
Multicast Group IP Feed B	224.0.213.33	pEUA:50033	pEUA:51033	pEUA:52033	pEUA:53033
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.34	vEUA:30034	vEUA:31034	vEUA:32034	vEUA:33034
Multicast Group IP Feed B	224.0.213.34	pEUA:50034	pEUA:51034	pEUA:52034	pEUA:53034
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.33	vEUA:40033	vEUA:41033	vEUA:42033	vEUA:43033
Multicast Group IP Feed B	224.0.213.33	pEUA:60033	pEUA:61033	pEUA:62033	pEUA:63033

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.31	vEUA:30031	vEUA:31031	vEUA:32031	vEUA:33031
Multicast Group IP Feed B	224.0.213.31	pEUA:50031	pEUA:51031	pEUA:52031	pEUA:53031
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.32	vEUA:30032	vEUA:31032	vEUA:32032	vEUA:33032
Multicast Group IP Feed B	224.0.213.32	pEUA:50032	pEUA:51032	pEUA:52032	pEUA:53032
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.31	vEUA:40031	vEUA:41031	vEUA:42031	vEUA:43031
Multicast Group IP Feed B	224.0.213.31	pEUA:60031	pEUA:61031	pEUA:62031	pEUA:63031

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.35	vEUA:30035	vEUA:31035	vEUA:32035	vEUA:33035
Multicast Group IP Feed B	224.0.213.35	pEUA:50035	pEUA:51035	pEUA:52035	pEUA:53035
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.36	vEUA:30036	vEUA:31036	vEUA:32036	vEUA:33036
Multicast Group IP Feed B	224.0.213.36	pEUA:50036	pEUA:51036	pEUA:52036	pEUA:53036
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.35	vEUA:40035	vEUA:41035	vEUA:42035	vEUA:43035
Multicast Group IP Feed B	224.0.213.35	pEUA:60035	pEUA:61035	pEUA:62035	pEUA:63035

2.10 MDG SET OF CHANNELS ID 45 – GLOBAL EQUITY MARKET

Environment	V-EUA P-EUA	MDGSetOfChannels ID	45
Optiq Segment name	Equities	MDGSetOfChannelsName	Global Equity Market

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.81	vEUA:30081	vEUA:31081	vEUA:32081	vEUA:33081
Multicast Group IP Feed B	224.0.213.81	pEUA:50081	pEUA:51081	pEUA:52081	pEUA:53081
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.81	vEUA:40081	vEUA:41081	vEUA:42081	vEUA:43081
Multicast Group IP Feed B	224.0.213.81	pEUA:60081	pEUA:61081	pEUA:62081	pEUA:63081

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.83	vEUA:30083	vEUA:31083	vEUA:32083	vEUA:33083
Multicast Group IP Feed B	224.0.213.83	pEUA:50083	pEUA:51083	pEUA:52083	pEUA:53083
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.97	vEUA:30097	vEUA:31097	vEUA:32097	vEUA:33097
Multicast Group IP Feed B	224.0.213.97	pEUA:50097	pEUA:51097	pEUA:52097	pEUA:53097
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.83	vEUA:40083	vEUA:41083	vEUA:42083	vEUA:43083
Multicast Group IP Feed B	224.0.213.83	pEUA:60083	pEUA:61083	pEUA:62083	pEUA:63083

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.82	vEUA:30082	vEUA:31082	vEUA:32082	vEUA:33082
Multicast Group IP Feed B	224.0.213.82	pEUA:50082	pEUA:51082	pEUA:52082	pEUA:53082
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.96	vEUA:30096	vEUA:31096	vEUA:32096	vEUA:33096
Multicast Group IP Feed B	224.0.213.96	pEUA:50096	pEUA:51096	pEUA:52096	pEUA:53096
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.82	vEUA:40082	vEUA:41082	vEUA:42082	vEUA:43082
Multicast Group IP Feed B	224.0.213.82	pEUA:60082	pEUA:61082	pEUA:62082	pEUA:63082

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4

Multicast Group IP Feed A	224.0.212.84	vEUA:30084	vEUA:31084	vEUA:32084	vEUA:33084
Multicast Group IP Feed B	224.0.213.84	pEUA:50084	pEUA:51084	pEUA:52084	pEUA:53084
Channel Speed	**1G**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.98	vEUA:30098	vEUA:31098	vEUA:32098	vEUA:33098
Multicast Group IP Feed B	224.0.213.98	pEUA:50098	pEUA:51098	pEUA:52098	pEUA:53098
Snapshot					
Channel Speed	**100M**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.84	vEUA:40084	vEUA:41084	vEUA:42084	vEUA:43084
Multicast Group IP Feed B	224.0.213.84	pEUA:60084	pEUA:61084	pEUA:62084	pEUA:63084

2.11 MDG SET OF CHANNELS ID 51 – EQUITIES GREECE

Environment	VEUA and PEUA	MDGSetOfChannels ID	51
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Greece

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.1	VEUA 30001	VEUA 31001	VEUA 32001	VEUA 33001
Multicast Group IP Feed B	224.0.213.1	PEUA 50001	PEUA 51001	PEUA 52001	PEUA 53001
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.1	VEUA 40001	VEUA 41001	VEUA 42001	VEUA 43001
Multicast Group IP Feed B	224.0.213.1	PEUA 60001	PEUA 61001	PEUA 62001	PEUA 63001

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.2	VEUA 30002	VEUA 31002	VEUA 32002	VEUA 33002
Multicast Group IP Feed B	224.0.213.2	PEUA 50002	PEUA 51002	PEUA 52002	PEUA 53002
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.3	VEUA 30003	VEUA 31003	VEUA 32003	VEUA 33003
Multicast Group IP Feed B	224.0.213.3	PEUA 50003	PEUA 51003	PEUA 52003	PEUA 53003
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.2	VEUA 40002	VEUA 41002	VEUA 42002	VEUA 43002
Multicast Group IP Feed B	224.0.213.2	PEUA 60002	PEUA 61002	PEUA 62002	PEUA 63002

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.4	VEUA 30004	VEUA 31004	VEUA 32004	VEUA 33004
Multicast Group IP Feed B	224.0.213.4	PEUA 50004	PEUA 51004	PEUA 52004	PEUA 53004
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.5	VEUA 30005	VEUA 31005	VEUA 32005	VEUA 33005
Multicast Group IP Feed B	224.0.213.5	PEUA 50005	PEUA 51005	PEUA 52005	PEUA 53005
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.4	VEUA 40004	VEUA 41004	VEUA 42004	VEUA 43004
Multicast Group IP Feed B	224.0.213.4	PEUA 60004	PEUA 61004	PEUA 62004	PEUA 63004

3. OPTIQ SEGMENT – 2. FUNDS REAL-TIME AND SNAPSHOT CONFIGURATION

3.1 MDG SET OF CHANNELS ID 1 – FUNDS

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	1
Optiq Segment name	Funds	MDGSetOfChannelsName	Funds

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.130	VEUA 30130			
Multicast Group IP Feed B	224.0.213.130	PEUA 50130	PEUA 51130		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.130	VEUA 40130			
Multicast Group IP Feed B	224.0.213.130	PEUA 60130	PEUA 61130		

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.131	VEUA 30131			
Multicast Group IP Feed B	224.0.213.131	PEUA 50131	PEUA 51131		
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.132	VEUA 30132			
Multicast Group IP Feed B	224.0.213.132	PEUA 50132	PEUA 51132		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.131	VEUA 40131			
Multicast Group IP Feed B	224.0.213.131	PEUA 60131	PEUA 61131		

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.134	VEUA 30134			
Multicast Group IP Feed B	224.0.213.134	PEUA 50134	PEUA 51134		
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.135	VEUA 30135			
Multicast Group IP Feed B	224.0.213.135	PEUA 50135	PEUA 51135		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.133	VEUA 40133			
Multicast Group IP Feed B	224.0.213.133	PEUA 60133	PEUA 61133		

3.2 MDG SET OF CHANNELS ID 39 – FUNDS ITALY (ATFX)

In the tables below, in the "Channel ID/Port number" cells, the first number corresponds to the vEUA port number, the second corresponds to the pEUA port number

Environment	V-EUA P-EUA	MDGSetOfChannels ID	39
Optiq Segment name	Funds	MDGSetOfChannelsName	Funds ETF Italy

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.50	30050			
Multicast Group IP Feed B	224.0.213.50	50050	51050		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.50	40050			
Multicast Group IP Feed B	224.0.213.50	60050	61050		

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.51	30051			
Multicast Group IP Feed B	224.0.213.51	50051	51051		
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.52	30052			
Multicast Group IP Feed B	224.0.213.52	50052	51052		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.51	40051			
Multicast Group IP Feed B	224.0.213.51	60051	61051		

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.53	30053			
Multicast Group IP Feed B	224.0.213.53	50053	51053		
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.54	30054			
Multicast Group IP Feed B	224.0.213.54	50054	51054		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.53	40053			
Multicast Group IP Feed B	224.0.213.53	60053	61053		

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.56	30056			
Multicast Group IP Feed B	224.0.213.56	50056	51056		
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.57	30057			
Multicast Group IP Feed B	224.0.213.57	50057	51057		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4

Multicast Group IP Feed A	224.0.212.55	40055	
Multicast Group IP Feed B	224.0.213.55	60055	61055

3.3 MDG SET OF CHANNELS ID 31 – BEST OF BOOK (RMF)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	31
Optiq Segment name	Funds	MDGSetOfChannelsName	Best of Book (RMF) Funds

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.136	VEUA 30136			
Multicast Group IP Feed B	224.0.213.136	PEUA 50136	PEUA 51136		
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.137	VEUA 30137			
Multicast Group IP Feed B	224.0.213.137	PEUA 50137	PEUA 51137		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.136	VEUA 40136			
Multicast Group IP Feed B	224.0.213.136	PEUA 60136	PEUA 61136		

3.4 MDG SET OF CHANNELS ID 50 – FUNDS GREECE

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	50
Optiq Segment name	Funds	MDGSetOfChannelsName	Funds Greece

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.099	VEUA 30099			
Multicast Group IP Feed B	224.0.213.099	PEUA 50099	PEUA 51099		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.099	VEUA 40099			
Multicast Group IP Feed B	224.0.213.099	PEUA 60099	PEUA 61099		

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.116	VEUA 30116			
Multicast Group IP Feed B	224.0.213.116	PEUA 50116	PEUA 51116		
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.117	VEUA 30117			
Multicast Group IP Feed B	224.0.213.117	PEUA 50117	PEUA 51117		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.116	VEUA 40116			
Multicast Group IP Feed B	224.0.213.116	PEUA 60116	PEUA 61116		

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.118	VEUA 30118			
Multicast Group IP Feed B	224.0.213.118	PEUA 50118	PEUA 51118		
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.119	VEUA 30119			
Multicast Group IP Feed B	224.0.213.119	PEUA 50119	PEUA 51119		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.118	VEUA 40118			
Multicast Group IP Feed B	224.0.213.118	PEUA 60118	PEUA 61118		

4. OPTIQ SEGMENT – 3. FIXED INCOME REAL-TIME AND SNAPSHOT CONFIGURATION

4.1 MDG SET OF CHANNELS ID 2 – FIXED INCOME

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	2
Optiq Segment name	Fixed Income	MDGSetOfChannelsName	Fixed Income

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.150	VEUA 30150			
Multicast Group IP Feed B	224.0.213.150	PEUA 50150			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.150	VEUA 40150			
Multicast Group IP Feed B	224.0.213.150	PEUA 60150			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.151	VEUA 30151			
Multicast Group IP Feed B	224.0.213.151	PEUA 50151			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.152	VEUA 30152			
Multicast Group IP Feed B	224.0.213.152	PEUA 50152			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.151	VEUA 40151			
Multicast Group IP Feed B	224.0.213.151	PEUA 60151			

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.153	VEUA 30153			
Multicast Group IP Feed B	224.0.213.153	PEUA 50153			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.154	VEUA 30154			
Multicast Group IP Feed B	224.0.213.154	PEUA 50154			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.153	VEUA 40153			
Multicast Group IP Feed B	224.0.213.153	PEUA 60153			

4.2 MDG SET OF CHANNELS ID 12 – FIXED INCOME NORDIC ABM

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	12
Optiq Segment name	Fixed Income	MDGSetOfChannelsName	Fixed Income Nordic ABM

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.149	VEUA 30149			
Multicast Group IP Feed B	224.0.213.149	PEUA 50149			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.149	VEUA 40149			
Multicast Group IP Feed B	224.0.213.149	PEUA 60149			

4.3 MDG SET OF CHANNELS ID 40 – FIXED INCOME Italy (MOT/ExtraMOT)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	40
Optiq Segment name	Fixed Income	MDGSetOfChannelsName	Fixed Income Italy (MOT/ExtraMOT)

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.40	VEUA 30040			
Multicast Group IP Feed B	224.0.213.40	PEUA 50040			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.40	VEUA 40040			
Multicast Group IP Feed B	224.0.213.40	PEUA 60040			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.43	VEUA 30043			
Multicast Group IP Feed B	224.0.213.43	PEUA 50043			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.44	VEUA 30044			
Multicast Group IP Feed B	224.0.213.44	PEUA 50044			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.43	VEUA 40043			
Multicast Group IP Feed B	224.0.213.43	PEUA 60043			

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.45	VEUA 30045			
Multicast Group IP Feed B	224.0.213.45	PEUA 50045			

Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.46	VEUA 30046			
Multicast Group IP Feed B	224.0.213.46	PEUA 50046			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.45	VEUA 40045			
Multicast Group IP Feed B	224.0.213.45	PEUA 60045			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.41	VEUA 30041			
Multicast Group IP Feed B	224.0.213.41	PEUA 50041			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.42	VEUA 30042			
Multicast Group IP Feed B	224.0.213.42	PEUA 50042			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.41	VEUA 40041			
Multicast Group IP Feed B	224.0.213.41	PEUA 60041			

4.4 MDG SET OF CHANNELS ID 42 – FIXED INCOME ETLX (Bond-X)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	42
Optiq Segment name	Fixed Income	MDGSetOfChannelsName	Fixed Income ETLX(Bond-X)

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.60	VEUA 30060			
Multicast Group IP Feed B	224.0.213.60	PEUA 50060			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.60	VEUA 40060			
Multicast Group IP Feed B	224.0.213.60	PEUA 60060			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.61	VEUA 30061			
Multicast Group IP Feed B	224.0.213.61	PEUA 50061			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.62	VEUA 30062			
Multicast Group IP Feed B	224.0.213.62	PEUA 50062			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.61	VEUA 40061			
Multicast Group IP Feed B	224.0.213.61	PEUA 60061			

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.63	VEUA 30063			
Multicast Group IP Feed B	224.0.213.63	PEUA 50063			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.64	VEUA 30064			
Multicast Group IP Feed B	224.0.213.64	PEUA 50064			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.63	VEUA 40063			
Multicast Group IP Feed B	224.0.213.63	PEUA 60063			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.58	VEUA 30058			
Multicast Group IP Feed B	224.0.213.58	PEUA 50058			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.59	VEUA 30059			
Multicast Group IP Feed B	224.0.213.59	PEUA 50059			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.58	VEUA 40058			
Multicast Group IP Feed B	224.0.213.58	PEUA 60058			

5. OPTIQ SEGMENT – 4. WARRANTS & CERTIFICATES REAL-TIME AND SNAPSHOT CONFIGURATION

5.1 MDG SET OF CHANNELS ID 4 – WARRANTS & CERTIFICATES

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	4
Optiq Segment name	Warrants & Certificates	MDGSetOfChannelsName	Warrants & Certificates

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.155	VEUA 30155	VEUA 31155		
Multicast Group IP Feed B	224.0.213.155	PEUA 50155	PEUA 51155		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.155	VEUA 40155	VEUA 41155		
Multicast Group IP Feed B	224.0.213.155	PEUA 60155	PEUA 61155		

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.156	VEUA 30156	VEUA 31156		
Multicast Group IP Feed B	224.0.213.156	PEUA 50156	PEUA 51156		
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.157	VEUA 30157	VEUA 31157		
Multicast Group IP Feed B	224.0.213.157	PEUA 50157	PEUA 51157		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.156	VEUA 40156	VEUA 41156		
Multicast Group IP Feed B	224.0.213.156	PEUA 60156	PEUA 61156		

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.159	VEUA 30159	VEUA 31159		
Multicast Group IP Feed B	224.0.213.159	PEUA 50159	PEUA 51159		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.158	VEUA 40158	VEUA 41158		
Multicast Group IP Feed B	224.0.213.158	PEUA 60158	PEUA 61158		

5.2 MDG SET OF CHANNELS ID 41 – WARRANTS & CERTIFICATES Italy (SEDEX)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	41
Optiq Segment name	Warrants & Certificates	MDGSetOfChannelsName	Warrants & Certificates Italy (SEDEX)

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.65	VEUA 30065	VEUA 31065		
Multicast Group IP Feed B	224.0.213.65	PEUA 50065	PEUA 51065		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.65	VEUA 40065	VEUA 41065		
Multicast Group IP Feed B	224.0.213.65	PEUA 60065	PEUA 61065		

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.66	VEUA 30066	VEUA 31066		
Multicast Group IP Feed B	224.0.213.66	PEUA 50066	PEUA 51066		
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.67	VEUA 30067	VEUA 31067		
Multicast Group IP Feed B	224.0.213.67	PEUA 50067	PEUA 51067		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.66	VEUA 40066	VEUA 41066		
Multicast Group IP Feed B	224.0.213.66	PEUA 60066	PEUA 61066		

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.69	VEUA 30069	VEUA 31069		
Multicast Group IP Feed B	224.0.213.69	PEUA 50069	PEUA 51069		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.68	VEUA 40068	VEUA 41068		
Multicast Group IP Feed B	224.0.213.68	PEUA 60068	PEUA 61068		

5.3 MDG SET OF CHANNELS ID 43 – WARRANTS & CERTIFICATES ETLX (Cert-X)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	43
Optiq Segment name	Warrants & Certificates	MDGSetOfChannelsName	Warrants & Certificates ETLX (Cert-X)

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.20	VEUA 30020	VEUA 31020		
Multicast Group IP Feed B	224.0.213.20	PEUA 50020	PEUA 51020		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.20	VEUA 40020	VEUA 41020		
Multicast Group IP Feed B	224.0.213.20	PEUA 60020	PEUA 61020		

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.21	VEUA 30021	VEUA 31021		
Multicast Group IP Feed B	224.0.213.21	PEUA 50021	PEUA 51021		
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.22	VEUA 30022	VEUA 31157		
Multicast Group IP Feed B	224.0.213.22	PEUA 50022	PEUA 51022		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.21	VEUA 40021	VEUA 41021		
Multicast Group IP Feed B	224.0.213.21	PEUA 60021	PEUA 61021		

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.24	VEUA 30024	VEUA 31024		
Multicast Group IP Feed B	224.0.213.24	PEUA 50024	PEUA 51024		
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.23	VEUA 40023	VEUA 41023		
Multicast Group IP Feed B	224.0.213.23	PEUA 60023	PEUA 61023		

6. OPTIQ SEGMENT – 5. BOURSE DE LUXEMBOURG REAL-TIME AND SNAPSHOT CONFIGURATION

6.1 MDG SET OF CHANNELS ID 3 – BOURSE DE LUXEMBOURG

Please note that the Bourse de Luxembourg Index messages are included in the Referential Data and Full Trade Information (REFT) real-time and snapshot channels.

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	3
Optiq Segment name	Bourse de Luxembourg	MDGSetOfChannelsName	Bourse de Luxembourg

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.170	VEUA 30170			
Multicast Group IP Feed B	224.0.213.170	PEUA 50170			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.170	VEUA 40170			
Multicast Group IP Feed B	224.0.213.170	PEUA 60170			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.171	VEUA 30171			
Multicast Group IP Feed B	224.0.213.171	PEUA 50171			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.172	VEUA 30172			
Multicast Group IP Feed B	224.0.213.172	PEUA 50172			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.171	VEUA 40171			
Multicast Group IP Feed B	224.0.213.171	PEUA 60171			

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.173	VEUA 30173			
Multicast Group IP Feed B	224.0.213.173	PEUA 50173			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.174	VEUA 30174			
Multicast Group IP Feed B	224.0.213.174	PEUA 50174			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.173	VEUA 40173			
Multicast Group IP Feed B	224.0.213.173	PEUA 60173			

7. OPTIQ SEGMENT – 9. INDICES REAL-TIME AND SNAPSHOT CONFIGURATION

7.1 MDG SET OF CHANNELS ID 13 – EURONEXT INDICES

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	13
Optiq Segment name	Indices	MDGSetOfChannelsName	Euronext Indices

Channel Type	REFI	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.250	VEUA 30250			
Multicast Group IP Feed B	224.0.213.250	PEUA 50250			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.250	VEUA 40250			
Multicast Group IP Feed B	224.0.213.250	PEUA 60250			

7.2 MDG SET OF CHANNELS ID 14 – EURONEXT INAV'S

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	14
Optiq Segment name	Indices	MDGSetOfChannelsName	Euronext iNAV's

Channel Type	REFI	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.251	VEUA 30251			
Multicast Group IP Feed B	224.0.213.251	PEUA 50251			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.251	VEUA 40251			
Multicast Group IP Feed B	224.0.213.251	PEUA 60251			

7.3 MDG SET OF CHANNELS ID 15 – EURONEXT DUBLIN INDICES

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	15
Optiq Segment name	Indices	MDGSetOfChannelsName	Euronext Dublin Indices

Channel Type	REFI	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.252	VEUA 30252			
Multicast Group IP Feed B	224.0.213.252	PEUA 50252			

Snapshot					
Channel Speed	**100M**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	**224.0.212.252**	**VEUA 40252**			
Multicast Group IP Feed B	**224.0.213.252**	**PEUA 60252**			

8. OPTIQ SEGMENT – 14. EURONEXT BLOCK

~~8.1 MDG SET OF CHANNELS ID 33 – EURONEXT BLOCK~~

~~Environment~~	~~V-EUA and P-EUA~~	~~MDGSetOfChannels ID~~	~~33~~
~~Optiq Segment name~~	~~Euronext Block~~	~~MDGSetOfChannelsName~~	~~Euronext Block~~

~~Channel Type~~	~~EBLK~~	~~Channel ID /Port~~			
~~Real-time~~					
~~Channel Speed~~	~~100M~~	~~Partition 1~~	~~Partition 2~~	~~Partition 3~~	~~Partition 4~~
~~Multicast Group IP Feed A~~	~~224.0.212.99~~	~~VEUA 30099~~			
~~Multicast Group IP Feed B~~	~~224.0.213.99~~	~~PEUA 50099~~			
~~Snapshot~~					
~~Channel Speed~~	~~100M~~	~~Partition 1~~	~~Partition 2~~	~~Partition 3~~	~~Partition 4~~
~~Multicast Group IP Feed A~~	~~224.0.212.99~~	~~VEUA 40099~~			
~~Multicast Group IP Feed B~~	~~224.0.213.99~~	~~PEUA 60099~~			

~~8.2~~8.1 MDG SET OF CHANNELS ID 19 – TRADING AFTER HOURS ITALY

In the tables below, in the "Channel ID/Port number" cells, the first number corresponds to the vEUA port number, the second corresponds to the pEUA port number

Environment	V-EUA P-EUA	MDGSetOfChannels ID	19
Optiq Segment name	Block	MDGSetOfChannelsName	Trading After Hours Italy

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.70	30070			
Multicast Group IP Feed B	224.0.213.70	50070			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.70	40070			
Multicast Group IP Feed B	224.0.213.70	60070			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.128	30128			
Multicast Group IP Feed B	224.0.213.128	50128			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.129	30129			
Multicast Group IP Feed B	224.0.213.129	50129			

Snapshot					
Channel Speed	**100M**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.128	40128			
Multicast Group IP Feed B	224.0.213.128	60128			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	**100M**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.71	30071			
Multicast Group IP Feed B	224.0.213.71	50071			
Channel Speed	**1G**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.72	30072			
Multicast Group IP Feed B	224.0.213.72	50072			
Snapshot					
Channel Speed	**100M**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.71	40071			
Multicast Group IP Feed B	224.0.213.71	60071			

Channel Type	FBOU	Channel ID /Port			
Real-time					
Channel Speed	**100M**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.73	30073			
Multicast Group IP Feed B	224.0.213.73	50073			
Channel Speed	**1G**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.74	30074			
Multicast Group IP Feed B	224.0.213.74	50074			
Snapshot					
Channel Speed	**100M**	**Partition 1**	**Partition 2**	**Partition 3**	**Partition 4**
Multicast Group IP Feed A	224.0.212.73	40073			
Multicast Group IP Feed B	224.0.213.73	60073			

~~8.~~38.2 MDG SET OF CHANNELS ID 46 – EQUITIES IPO FRANCE

Environment	V-EUA P-EUA	MDGSetOfChannels ID	46
Optiq Segment name	Block	MDGSetOfChannelsName	Equities IPO France

Channel Type	EBLK	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A Multicast Group IP Feed B	224.0.212.19 224.0.213.19	30019 50019			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A Multicast Group IP Feed B	224.0.212.19 224.0.213.19	40019 60019			

9. OPTIQ SEGMENT – 16. IRISH BONDS & FUNDS

9.1 MDG SET OF CHANNELS ID 35 – EURONEXT DUBLIN BONDS AND FUNDS

Environment	V-EUA P-EUA	MDGSetOfChannels ID	35
Optiq Segment name	Irish Bonds & Funds	MDGSetOfChannelsName	Euronext Dublin Bonds and Funds

Channel Type	IBFR	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.226	VEUA 30226			
Multicast Group IP Feed B	224.0.213.226	PEUA 50226			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.226	VEUA 40226			
Multicast Group IP Feed B	224.0.213.226	PEUA 60226			

10. OPTIQ SEGMENT – 8. COMMODITY DERIVATIVES REAL-TIME AND SNAPSHOT CONFIGURATION

10.1 MDG SET OF CHANNELS ID 16 – COMMODITY DERIVATIVES

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	16
Optiq Segment name	Commodity Derivatives	MDGSetOfChannelsName	Commodity Derivatives

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.245	VEUA 30245			
Multicast Group IP Feed B	224.0.213.245	PEUA 50245			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.245	VEUA 40245			
Multicast Group IP Feed B	224.0.213.245	PEUA 60245			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.246	VEUA 30246			
Multicast Group IP Feed B	224.0.213.246	PEUA 50246			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.247	VEUA 30247			
Multicast Group IP Feed B	224.0.213.247	PEUA 50247			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.246	VEUA 40246			
Multicast Group IP Feed B	224.0.213.246	PEUA 60246			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.249	VEUA 30249			
Multicast Group IP Feed B	224.0.213.249	PEUA 50249			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.248	VEUA 40248			
Multicast Group IP Feed B	224.0.213.248	PEUA 60248			

10.2 MDG SET OF CHANNELS ID 38 – COMMODITY ENERGIES (POWER)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	38
Optiq Segment name	Commodity Derivatives	MDGSetOfChannelsName	Commodity Energies (Power)

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.211	VEUA 30211			
Multicast Group IP Feed B	224.0.213.211	PEUA 50211			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.211	VEUA 40211			
Multicast Group IP Feed B	224.0.213.211	PEUA 60211			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.212	VEUA 30212			
Multicast Group IP Feed B	224.0.213.212	PEUA 50212			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.212	VEUA 40212			
Multicast Group IP Feed B	224.0.213.212	PEUA 60212			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.214	VEUA 30214			
Multicast Group IP Feed B	224.0.213.214	PEUA 50214			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.214	VEUA 40214			
Multicast Group IP Feed B	224.0.213.214	PEUA 60214			

11. OPTIQ SEGMENT – 11. INDEX DERIVATIVES REAL-TIME AND SNAPSHOT CONFIGURATION

11.1 MDG SET OF CHANNELS ID 23 – INDEX OPTIONS FRANCE

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	23
Optiq Segment name	Index Derivatives	MDGSetOfChannelsName	Index Options France

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.220	VEUA 30220			
Multicast Group IP Feed B	224.0.213.220	PEUA 50220			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.220	VEUA 40220			
Multicast Group IP Feed B	224.0.213.220	PEUA 60220			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.221	VEUA 30221			
Multicast Group IP Feed B	224.0.213.221	PEUA 50221			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.222	VEUA 30222			
Multicast Group IP Feed B	224.0.213.222	PEUA 50222			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.221	VEUA 40221			
Multicast Group IP Feed B	224.0.213.221	PEUA 60221			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.224	VEUA 30224			
Multicast Group IP Feed B	224.0.213.224	PEUA 50224			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.225	VEUA 30225			
Multicast Group IP Feed B	224.0.213.225	PEUA 50225			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.223	VEUA 40223			
Multicast Group IP Feed B	224.0.213.223	PEUA 60223			

11.2 MDG SET OF CHANNELS ID 24 – INDEX OPTIONS NETHERLANDS

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	24
Optiq Segment name	Index Derivatives	MDGSetOfChannelsName	Index Options Netherlands

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.230	VEUA 30230			
Multicast Group IP Feed B	224.0.213.230	PEUA 50230			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.230	VEUA 40230			
Multicast Group IP Feed B	224.0.213.230	PEUA 60230			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.231	VEUA 30231			
Multicast Group IP Feed B	224.0.213.231	PEUA 50231			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.232	VEUA 30232			
Multicast Group IP Feed B	224.0.213.232	PEUA 50232			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.231	VEUA 40231			
Multicast Group IP Feed B	224.0.213.231	PEUA 60231			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.234	VEUA 30234			
Multicast Group IP Feed B	224.0.213.234	PEUA 50234			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.235	VEUA 30235			
Multicast Group IP Feed B	224.0.213.235	PEUA 50235			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.233	VEUA 40233			
Multicast Group IP Feed B	224.0.213.233	PEUA 60233			

11.3 MDG SET OF CHANNELS ID 25 – INDEX DERIVATIVES OTHER (BELGIUM AND PORTUGAL)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	25
Optiq Segment name	Index Derivatives	MDGSetOfChannelsName	Index Derivatives Other

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.240	VEUA 30240			
Multicast Group IP Feed B	224.0.213.240	PEUA 50240			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.240	VEUA 40240			
Multicast Group IP Feed B	224.0.213.240	PEUA 60240			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.241	VEUA 30241			
Multicast Group IP Feed B	224.0.213.241	PEUA 50241			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.242	VEUA 30242			
Multicast Group IP Feed B	224.0.213.242	PEUA 50242			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.241	VEUA 40241			
Multicast Group IP Feed B	224.0.213.241	PEUA 60241			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.244	VEUA 30244			
Multicast Group IP Feed B	224.0.213.244	PEUA 50244			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.243	VEUA 40243			
Multicast Group IP Feed B	224.0.213.243	PEUA 60243			

11.4 MDG SET OF CHANNELS ID 26 – INDEX FUTURES FRANCE

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	26
Optiq Segment name	Index Derivatives	MDGSetOfChannelsName	Index Futures France

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.190	VEUA 30190			
Multicast Group IP Feed B	224.0.213.190	PEUA 50190			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.190	VEUA 40190			
Multicast Group IP Feed B	224.0.213.190	PEUA 60190			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.191	VEUA 30191			
Multicast Group IP Feed B	224.0.213.191	PEUA 50191			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.192	VEUA 30192			
Multicast Group IP Feed B	224.0.213.192	PEUA 50192			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.191	VEUA 40191			
Multicast Group IP Feed B	224.0.213.191	PEUA 60191			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.194	VEUA 30194			
Multicast Group IP Feed B	224.0.213.194	PEUA 50194			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.195	VEUA 30195			
Multicast Group IP Feed B	224.0.213.195	PEUA 50195			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.193	VEUA 40193			
Multicast Group IP Feed B	224.0.213.193	PEUA 60193			

11.5 MDG SET OF CHANNELS ID 27 – INDEX FUTURES NETHERLANDS

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	27
Optiq Segment name	Index Derivatives	MDGSetOfChannelsName	Index Futures Netherlands

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.200	VEUA 30200			
Multicast Group IP Feed B	224.0.213.200	PEUA 50200			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.200	VEUA 40200			
Multicast Group IP Feed B	224.0.213.200	PEUA 60200			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.201	VEUA 30201			
Multicast Group IP Feed B	224.0.213.201	PEUA 50201			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.202	VEUA 30202			
Multicast Group IP Feed B	224.0.213.202	PEUA 50202			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.201	VEUA 40201			
Multicast Group IP Feed B	224.0.213.201	PEUA 60201			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.204	VEUA 30204			
Multicast Group IP Feed B	224.0.213.204	PEUA 50204			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.205	VEUA 30205			
Multicast Group IP Feed B	224.0.213.205	PEUA 50205			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.203	VEUA 40203			
Multicast Group IP Feed B	224.0.213.203	PEUA 60203			

11.6 MDG SET OF CHANNELS ID 28 – INDEX FUTURES ITALY

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	28
Optiq Segment name	Index Derivatives	MDGSetOfChannelsName	Index Futures Italy

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.196	VEUA 30196			
Multicast Group IP Feed B	224.0.213.196	PEUA 50196			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.196	VEUA 40196			
Multicast Group IP Feed B	224.0.213.196	PEUA 60196			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.197	VEUA 30197			
Multicast Group IP Feed B	224.0.213.197	PEUA 50197			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.198	VEUA 30198			
Multicast Group IP Feed B	224.0.213.198	PEUA 50198			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.197	VEUA 40197			
Multicast Group IP Feed B	224.0.213.197	PEUA 60197			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.199	VEUA 30199			
Multicast Group IP Feed B	224.0.213.199	PEUA 50199			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.229	VEUA 30229			
Multicast Group IP Feed B	224.0.213.229	PEUA 50229			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.254	VEUA 40254			
Multicast Group IP Feed B	224.0.213.254	PEUA 60254			

11.7 MDG SET OF CHANNELS ID 37 – INDEX OPTIONS ITALY

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	37
Optiq Segment name	Index Derivatives	MDGSetOfChannelsName	Index Options Italy

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.215	VEUA 30215			
Multicast Group IP Feed B	224.0.213.215	PEUA 50215			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.215	VEUA 40215			
Multicast Group IP Feed B	224.0.213.215	PEUA 60215			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.216	VEUA 30216			
Multicast Group IP Feed B	224.0.213.216	PEUA 50216			
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.217	VEUA 30217			
Multicast Group IP Feed B	224.0.213.217	PEUA 50217			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.216	VEUA 40216			
Multicast Group IP Feed B	224.0.213.216	PEUA 60216			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.219	VEUA 30219			
Multicast Group IP Feed B	224.0.213.219	PEUA 50219			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.228	VEUA 30228			
Multicast Group IP Feed B	224.0.213.228	PEUA 50228			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.218	VEUA 40218			
Multicast Group IP Feed B	224.0.213.218	PEUA 60218			

11.8 MDG SET OF CHANNELS ID 53 – INDEX DERIVATIVES GREECE

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	53
Optiq Segment name	Index Derivatives	MDGSetOfChannelsName	Index Derivs GRE

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.144	VEUA 30144			
Multicast Group IP Feed B	224.0.213.144	PEUA 50144			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.144	VEUA 40144			
Multicast Group IP Feed B	224.0.213.144	PEUA 60144			

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.145	VEUA 30145			
Multicast Group IP Feed B	224.0.213.145	PEUA 50145			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.146	VEUA 30146			
Multicast Group IP Feed B	224.0.213.146	PEUA 50146			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.145	VEUA 40145			
Multicast Group IP Feed B	224.0.213.145	PEUA 60145			

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.147	VEUA 30147			
Multicast Group IP Feed B	224.0.213.147	PEUA 50147			
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.148	VEUA 30148			
Multicast Group IP Feed B	224.0.213.148	PEUA 50148			
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.147	VEUA 40147			
Multicast Group IP Feed B	224.0.213.147	PEUA 60147			

12. OPTIQ SEGMENT – 12. EQUITY DERIVATIVES REAL-TIME AND SNAPSHOT CONFIGURATION

12.1 MDG SET OF CHANNELS ID 20 – EQUITY DERIVATIVES FRANCE

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	20
Optiq Segment name	Equity Derivatives	MDGSetOfChannelsName	Equity Derivatives France

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.175	VEUA 30175	VEUA 31175	VEUA 32175	
Multicast Group IP Feed B	224.0.213.175	PEUA 50175	PEUA 51175	PEUA 52175	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.175	VEUA 40175	VEUA 41175	VEUA 42175	
Multicast Group IP Feed B	224.0.213.175	PEUA 60175	PEUA 61175	PEUA 62175	

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.176	VEUA 30176	VEUA 31176	VEUA 32176	
Multicast Group IP Feed B	224.0.213.176	PEUA 50176	PEUA 51176	PEUA 52176	
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.177	VEUA 30177	VEUA 31177	VEUA 32177	
Multicast Group IP Feed B	224.0.213.177	PEUA 50177	PEUA 51177	PEUA 52177	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.176	VEUA 40176	VEUA 41176	VEUA 42176	
Multicast Group IP Feed B	224.0.213.176	PEUA 60176	PEUA 61176	PEUA 62176	

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.179	VEUA 30179	VEUA 31179	VEUA 32179	
Multicast Group IP Feed B	224.0.213.179	PEUA 50179	PEUA 51179	PEUA 52179	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.178	VEUA 40178	VEUA 41178	VEUA 42178	
Multicast Group IP Feed B	224.0.213.178	PEUA 60178	PEUA 61178	PEUA 62178	

12.2 MDG SET OF CHANNELS ID 21 – EQUITY DERIVATIVES NETHERLANDS

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	21
Optiq Segment name	Equity Derivatives	MDGSetOfChannelsName	Equity Derivatives Netherlands

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.180	VEUA 30180	VEUA 31180	VEUA 32180	
Multicast Group IP Feed B	224.0.213.180	PEUA 50180	PEUA 51180	PEUA 52180	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.180	VEUA 40180	VEUA 41180	VEUA 42180	
Multicast Group IP Feed B	224.0.213.180	PEUA 60180	PEUA 61180	PEUA 62180	

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.181	VEUA 30181	VEUA 31181	VEUA 32181	
Multicast Group IP Feed B	224.0.213.181	PEUA 50181	PEUA 51181	PEUA 52181	
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.182	VEUA 30182	VEUA 31182	VEUA 32182	
Multicast Group IP Feed B	224.0.213.182	PEUA 50182	PEUA 51182	PEUA 52182	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.181	VEUA 40181	VEUA 41181	VEUA 42181	
Multicast Group IP Feed B	224.0.213.181	PEUA 60181	PEUA 61181	PEUA 62181	

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.184	VEUA 30184	VEUA 31184	VEUA 32184	
Multicast Group IP Feed B	224.0.213.184	PEUA 50184	PEUA 51184	PEUA 52184	
Snapshot					
Channel Speed	10M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.183	VEUA 40183	VEUA 41183	VEUA 42183	
Multicast Group IP Feed B	224.0.213.183	PEUA 60183	PEUA 61183	PEUA 62183	

12.3 MDG SET OF CHANNELS ID 22 – EQUITY DERIVATIVES OTHER (BELGIUM AND PORTUGAL)

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	22
Optiq Segment name	Equity Derivatives	MDGSetOfChannelsName	Equity Derivatives Other

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.185	VEUA 30185	VEUA 31185	VEUA 32185	
Multicast Group IP Feed B	224.0.213.185	PEUA 50185	PEUA 51185	PEUA 52185	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.185	VEUA 40185	VEUA 41185	VEUA 42185	
Multicast Group IP Feed B	224.0.213.185	PEUA 60185	PEUA 61185	PEUA 62185	

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.186	VEUA 30186	VEUA 31186	VEUA 32186	
Multicast Group IP Feed B	224.0.213.186	PEUA 50186	PEUA 51186	PEUA 52186	
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.187	VEUA 30187	VEUA 31187	VEUA 32187	
Multicast Group IP Feed B	224.0.213.187	PEUA 50187	PEUA 51187	PEUA 52187	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.186	VEUA 40186	VEUA 41186	VEUA 42186	
Multicast Group IP Feed B	224.0.213.186	PEUA 60186	PEUA 61186	PEUA 62186	

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.189	VEUA 30189	VEUA 31189	VEUA 32189	
Multicast Group IP Feed B	224.0.213.189	PEUA 50189	PEUA 51189	PEUA 52189	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.188	VEUA 40188	VEUA 41188	VEUA 42188	
Multicast Group IP Feed B	224.0.213.188	PEUA 60188	PEUA 61188	PEUA 62188	

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12.4 MDG SET OF CHANNELS ID 36 – EQUITY DERIVATIVES ITALY

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	36
Optiq Segment name	Equity Derivatives	MDGSetOfChannelsName	Equity Derivatives Italy

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.210	VEUA 30210	VEUA 31210	VEUA 32210	
Multicast Group IP Feed B	224.0.213.210	PEUA 50210	PEUA 51210	PEUA 52210	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.210	VEUA 40210	VEUA 41210	VEUA 42210	
Multicast Group IP Feed B	224.0.213.210	PEUA 60210	PEUA 61210	PEUA 62210	

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.206	VEUA 30206	VEUA 31206	VEUA 32206	
Multicast Group IP Feed B	224.0.213.206	PEUA 50206	PEUA 51206	PEUA 52206	
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.207	VEUA 30207	VEUA 31207	VEUA 32207	
Multicast Group IP Feed B	224.0.213.207	PEUA 50207	PEUA 51207	PEUA 52207	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.206	VEUA 40206	VEUA 41206	VEUA 42206	
Multicast Group IP Feed B	224.0.213.206	PEUA 60206	PEUA 61206	PEUA 62206	

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	1G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.209	VEUA 30209	VEUA 31209	VEUA 32209	
Multicast Group IP Feed B	224.0.213.209	PEUA 50209	PEUA 51209	PEUA 52209	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.208	VEUA 40208	VEUA 41183	VEUA 42208	
Multicast Group IP Feed B	224.0.213.208	PEUA 60208	PEUA 61208	PEUA 62208	

12.5 MDG SET OF CHANNELS ID 52 – EQUITY DERIVATIVES GREECE

Environment	V-EUA and P-EUA	MDGSetOfChannels ID	52
Optiq Segment name	Equity Derivatives	MDGSetOfChannelsName	Equity Derivatives Greece

Channel Type	REFT	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.28	VEUA 30028	VEUA 31028	VEUA 32028	
Multicast Group IP Feed B	224.0.213.28	PEUA 50028	PEUA 51028	PEUA 52028	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.28	VEUA 40028	VEUA 41028	VEUA 42028	
Multicast Group IP Feed B	224.0.213.28	PEUA 60028	PEUA 61028	PEUA 62028	

Channel Type	BBBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.29	VEUA 30029	VEUA 31029	VEUA 32029	
Multicast Group IP Feed B	224.0.213.29	PEUA 50029	PEUA 51029	PEUA 52029	
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.37	VEUA 30037	VEUA 31037	VEUA 32037	
Multicast Group IP Feed B	224.0.213.37	PEUA 50037	PEUA 51037	PEUA 52037	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.29	VEUA 40029	VEUA 41029	VEUA 42029	
Multicast Group IP Feed B	224.0.213.29	PEUA 60029	PEUA 61029	PEUA 62029	

Channel Type	FBMU	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.38	VEUA 30038	VEUA 31038	VEUA 32038	
Multicast Group IP Feed B	224.0.213.38	PEUA 50038	PEUA 51038	PEUA 52038	
Channel Speed	10G	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.39	VEUA 30039	VEUA 31039	VEUA 32039	
Multicast Group IP Feed B	224.0.213.39	PEUA 50039	PEUA 51039	PEUA 52039	
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.212.38	VEUA 40038	VEUA 41038	VEUA 42038	
Multicast Group IP Feed B	224.0.213.38	PEUA 60038	PEUA 61038	PEUA 62038	