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OPTIQ® Orderbook Snapshot and MDG Lite – Production Connectivity

EURONEXT MILAN CASH AND DERIVATIVES MARKETS

Document type or subject

FEED CONFIGURATION DOCUMENT

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PREFACE

DOCUMENT HISTORY

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

VERSION NO.	DATE	CHANGE DESCRIPTION
1.0	Jan 2023	Optiq® Snapshot and MDG Lite Production and Disaster Recovery – Environment feed configuration details.
1.1	May 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)
1.2	<u>June 2023</u>	Correction to Warrants & Certificates MDG Lite Secondary gateways IP in section 5.1.

REFERENCE MATERIAL

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

- [Euronext Markets – Optiq MDG Client Specifications](#)
- [Euronext Cash and Derivatives Markets – Optiq MDG Production Connectivity](#)
- [Optiq® MDG Lite Client Specifications](#)

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FURTHER INFORMATION

1. INTRODUCTION

This document provides all multicast and TCP/IP addresses required to access the Euronext Optiq® Production and Disaster Recovery (DR) for Optiq Snapshot and MDG Lite services.

The Euronext Optiq® Production environment (PROD) is located in Bergamo and the Disaster Recovery (DR) environment is located at St. Denis. The Production Primary (P) and Secondary (S) Source IP Address ranges are provided in this document for the live and standby systems as part of the High Availability mechanism.

The document should be read in conjunction with the Euronext Cash and Derivatives Markets – Optiq MDG External User Acceptance Connectivity document, in order to derive a combined view of the Euronext Production and DR available services.

Customers are requested to allow the Production Primary, Production Secondary and Disaster Recovery (DR) Source IP Address ranges through their Firewalls.

1.1 SET OF CHANNELS FOR OPTIQ SNAPSHOT AND MDG LITE SERVICES

The partitioning of Optiq Snapshot and MDG Lite Channels is aligned with partitioning of Optiq Segments. Only Italy Channels are supported.

Optiq Segment	Number of Partitions	MDG Set Of Channels ID	MDG Set Of Channels Name
1. Equities	4	18	Equities Italy [MTAA, MIVX, EXGM]
		44	Equities ETLX [ETLX]
		45	Italy GEM [BGEM]
2. Funds	1	39	Italy Funds [ETFP, ATFX]
3. Fixed Income	1	40	Fixed Income Italy (MOT/ExtraMOT)
		42	Fixed Income ETLX (Bond-X)
4. Warrants and Certificates	2	41	Warrants and Certificates Italy (SEDEX)
		43	Warrants and Certificates ETLX (Cert-X)
14. Euronext Block	1	19	Italy TAH [XTAH]

1.2 CHANNEL TYPES AND CHANNEL ID

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

1. Pre-trade Multicast services
 - a. MBO – Best 10 Bid and Ask orders
 - b. MBP – Best 10 Bid and Ask price levels

In addition, depending on both the Asset Class and the MDG Lite users access enablement, the following MDG Lite services via TCP connection are made available to customers:

2. MDG Lite
 - a. MBO - Best 10 Bid and Ask orders
 - b. MBP – Best 10 Bid and Ask price levels
 - c. BBBO – Best Bid and Ask price levels
 - d. Full book using Market Update messages (includes Best Bid and Best Offer)
 - e. Full book using Order Update messages (includes Best Bid and Best Offer)
 - f. Post Trade –Full Trade Information
 - g. Reference Data

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
Production	1(n)xxx	Real-Time	224.0.208.xxx	224.0.209.xxx
	2(n)xxx	Snapshot		

The Source Multicast IP for MBO/MBP Real-time and Snapshot, and MDG Lite destination Ips for Feed A and B are:

Description	IP Address
Primary IP Address MDG Lite Destination	212.107.95.0/24
Secondary IP Address of MDG Lite Destination	212.197.254.0/24
Primary IP Address Source of Multicast	212.107.93.0/24
Secondary IP Address Source of Multicast	212.107.94.0/24

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

2.1 MDG SET OF CHANNELS ID 18 – EQUITIES ITALY

Environment	PROD	MDGSetOfChannels ID	18
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Italy

Channel Type	MBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.10	10010	11010	12010	13010
Multicast Group IP Feed B	224.0.209.10				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.10	20010	21010	22010	23010
Multicast Group IP Feed B	224.0.209.10				

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.9	10009	11009	12009	13009
Multicast Group IP Feed B	224.0.209.9				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.9	20009	21009	22009	23009
Multicast Group IP Feed B	224.0.209.9				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.107.95.86:10009	212.107.95.86:11009	212.107.95.86:12009	212.107.95.86:13009
Secondary MDG Lite IP		212.107.95.89:10009	212.107.95.90:11009	212.107.95.91:12009	212.107.95.89:13009

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	18
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities Italy

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
	Partition 1	Partition 2	Partition 3	Partition 4	
Primary MDG Lite IP	212.197.254.43:10009	212.197.254.43:11009	212.197.254.43:12009	212.197.254.43:13009	
Secondary MDG Lite IP	212.197.254.44:10009	212.197.254.45:11009	212.197.254.46:12009	212.197.254.44:13009	

2.2 MDG SET OF CHANNELS ID 44 – EQUITIES ETLX

Environment	PROD	MDGSetOfChannels ID	44
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities ETLX

Channel Type	MBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.12	10012	11012	12012	13012
Multicast Group IP Feed B	224.0.209.12				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.12	20012	21012	22012	23012
Multicast Group IP Feed B	224.0.209.12				

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.11	10011	11011	12011	13011
Multicast Group IP Feed B	224.0.209.11				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.209.11	20011	21011	22011	23011
Multicast Group IP Feed B	224.0.209.11				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
Channel Speed		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.107.95.90:10011	212.107.95.90:11011	212.107.95.91:12011	212.107.95.91:13011
Secondary MDG Lite IP		212.107.95.91:10011	212.107.95.91:11011	212.107.95.90:12011	212.107.95.90:13011

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	44
Optiq Segment name	Equities	MDGSetOfChannelsName	Equities ETLX

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.197.254.45:10011	212.197.254.45:11011	212.197.254.46:12011	212.197.254.46:13011
Secondary MDG Lite IP		212.197.254.46:10011	212.197.254.46:11011	212.197.254.45:12011	212.197.254.45:13011

2.3 MDG SET OF CHANNELS ID 45 – GLOBAL EQUITY MARKET

Environment	PROD	MDGSetOfChannels ID	45
Optiq Segment name	Equities	MDGSetOfChannelsName	Global Equity Market

Channel Type	MBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.14	10014	11014	12014	13014
Multicast Group IP Feed B	224.0.209.14				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.14	20014	21014	22014	23014
Multicast Group IP Feed B	224.0.209.14				

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.13	10013	11013	12013	13013
Multicast Group IP Feed B	224.0.209.13				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.13	20013	21013	22013	23013
Multicast Group IP Feed B	224.0.209.13				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
Channel Speed		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.107.95.89:10013	212.107.95.89:11013	212.107.95.89:12013	212.107.95.89:13013
Secondary MDG Lite IP		212.107.95.86:10013	212.107.95.90:11013	212.107.95.91:12013	212.107.95.86:13013

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	45
Optiq Segment name	Equities	MDGSetOfChannelsName	Global Equity Market

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.197.254.44:10013	212.197.254.44:11013	212.197.254.44:12013	212.197.254.44:13013
Secondary MDG Lite IP		212.197.254.43:10013	212.197.254.45:11013	212.197.254.46:12013	212.197.254.43:13013

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

3.1 MDG SET OF CHANNELS ID 39 – FUNDS ETF ITALY

Environment	PROD	MDGSetOfChannels ID	39
Optiq Segment name	Funds	MDGSetOfChannelsName	Funds ETF Italy

Channel Type	MBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.2	10002			
Multicast Group IP Feed B	224.0.209.2				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.2	20002			
Multicast Group IP Feed B	224.0.209.2				

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.1	10001			
Multicast Group IP Feed B	224.0.209.1				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.1	20001			
Multicast Group IP Feed B	224.0.209.1				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
Channel Speed		Partition 1			
Primary MDG Lite IP		212.107.95.86:10001			
Secondary MDG Lite IP		212.107.95.90:10001			

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	39
Optiq Segment name	Funds	MDGSetOfChannelsName	Funds ETF Italy

Channel Type	MDG Lite	Channel ID /Port		
Real-time				
	Partition 1			
Primary MDG Lite IP	212.197.254.43:10001			
Secondary MDG Lite IP	212.197.254.45:10001			

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

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

Environment	PROD	MDGSetOfChannels ID	40
Optiq Segment name	Fixed Income	MDGSetOfChannelsName	Fixed Income Italy (MOT/ExtraMOT)

Channel Type	MBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.4	10004			
Multicast Group IP Feed B	224.0.209.4				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.4	20004			
Multicast Group IP Feed B	224.0.209.4				

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.3	10003			
Multicast Group IP Feed B	224.0.209.3				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.3	20003			
Multicast Group IP Feed B	224.0.209.3				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
Channel Speed		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.107.95.90:10003			
Secondary MDG Lite IP		212.107.95.89:10003			

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	40
Optiq Segment name	Fixed Income	MDGSetOfChannelsName	Fixed Income Italy (MOT/ExtraMOT)

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
	Partition 1				
Primary MDG Lite IP	212.197.254.45:10003				
Secondary MDG Lite IP	212.197.254.44:10003				

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

Environment	PROD	MDGSetOfChannels ID	42
Optiq Segment name	Fixed Income	MDGSetOfChannelsName	Fixed Income ETLX (Bond-X)

Channel Type	MBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.6	10006			
Multicast Group IP Feed B	224.0.209.6				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.6	20006			
Multicast Group IP Feed B	224.0.209.6				

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.5	10005			
Multicast Group IP Feed B	224.0.209.5				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.5	20005			
Multicast Group IP Feed B	224.0.209.5				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
Channel Speed		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.107.95.91:10005			
Secondary MDG Lite IP		212.107.95.86:10005			

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	42
Optiq Segment name	Fixed Income	MDGSetOfChannelsName	Fixed Income ETLX (Bond-X)

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
	Partition 1				
Primary MDG Lite IP	212.197.254.46:10005				
Secondary MDG Lite IP	212.197.254.43:10005				

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

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

Environment	PROD	MDGSetOfChannels ID	41
Optiq Segment name	Warrants & Certificates	MDGSetOfChannelsName	Warrants & Certificates Italy (SEDEX)

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.7	10007	11007		
Multicast Group IP Feed B	224.0.209.7				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.7	20007	21007		
Multicast Group IP Feed B	224.0.209.7				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
Channel Speed		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.107.95.91:10007	212.107.95.91:11007		
Secondary MDG Lite IP		212.107.95.86:10007	212.107.95.89:11007		

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	41
Optiq Segment name	Warrants & Certificates	MDGSetOfChannelsName	Warrants & Certificates Italy (SEDEX)

Channel Type	MDG Lite	Channel ID /Port		
Real-time				
	Partition 1			
Primary MDG Lite IP	212.197.254.46:10007	212.197.254.46:11007		
Secondary MDG Lite IP	212.197.254.43:10007	212.197.254.44:11007		

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

Environment	PROD	MDGSetOfChannels ID	43
Optiq Segment name	Warrants & Certificates	MDGSetOfChannelsName	Warrants & Certificates ETLX (Cert-X)

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.8	10008	11008		
Multicast Group IP Feed B	224.0.209.8				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.8	20008	21008		
Multicast Group IP Feed B	224.0.209.8				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
Channel Speed		Partition 1	Partition 2	Partition 3	Partition 4
Primary MDG Lite IP		212.107.95.90:10008	212.107.95.90:11008		
Secondary MDG Lite IP		212.107.95.86:10008	212.107.95.89:11008		

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	43
Optiq Segment name	Warrants & Certificates	MDGSetOfChannelsName	Warrants & Certificates ETLX (Cert-X)

Channel Type	MDG Lite	Channel ID /Port		
Real-time				
	Partition 1			
Primary MDG Lite IP	212.197.254.45:10008	212.197.254.45:11008		
Secondary MDG Lite IP	212.197.254.43:10008	212.197.254.44:11008		

6. OPTIQ SEGMENT – 14. EURONEXT BLOCK

6.1 MDG SET OF CHANNELS ID 19 – TRADING AFTER HOURS ITALY

Environment	PROD	MDGSetOfChannels ID	19
Optiq Segment name	Block	MDGSetOfChannelsName	Trading After Hours Italy

Channel Type	MBO	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.16	10016			
Multicast Group IP Feed B	224.0.209.16				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.16	20016			
Multicast Group IP Feed B	224.0.209.16				

Channel Type	MBP	Channel ID /Port			
Real-time					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.15	10015			
Multicast Group IP Feed B	224.0.209.15				
Snapshot					
Channel Speed	100M	Partition 1	Partition 2	Partition 3	Partition 4
Multicast Group IP Feed A	224.0.208.15	20015			
Multicast Group IP Feed B	224.0.209.15				

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
Channel Speed		Partition 1			
Primary MDG Lite IP		212.107.95.89:10015			
Secondary MDG Lite IP		212.107.95.91:10015			

Environment	DISASTER RECOVERY	MDGSetOfChannels ID	19
Optiq Segment name	Block	MDGSetOfChannelsName	Trading After Hours Italy

Channel Type	MDG Lite	Channel ID /Port			
Real-time					
		Partition 1			
Primary MDG Lite IP		212.197.254.44:10015			
Secondary MDG Lite IP		212.197.254.46:10015			