

Document title

**EURONEXT OPTIQ PHASE 2: ORDER ENTRY GATEWAY (OEG) AND
MATCHING ENGINE (ME) MIGRATION WEEK-END GUIDELINES FOR
SATURDAY 23 JUNE 2018**

Document type or subject

EURONEXT OPTIQ PHASE 2: ORDER ENTRY GATEWAY (OEG) AND
MATCHING ENGINE (ME) MIGRATION WEEK-END GUIDELINES FOR
SATURDAY 23 JUNE 2018

Revision number

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Date

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EXECUTIVE SUMMARY

Customers are invited to validate their migration over the Euronext Optiq® Phase 2: Order Entry Gateway (OEG) and Matching Engine (ME) on All Cash Market Segments during the migration week-end organised in the Production environment on Saturday 23 June 2018 between 11:00 and 15:00 Central European Summer Time (CEST).

This migration week-end will allow customers to validate the target Production implementation of Order Entry Gateway (OEG) Cash in advance. **Customers will not be authorised to take part in the migration week-end and Go Live unless they have (i) validated their conformance test, (ii) confirmed Telnet connectivity to Production and (iii) ordered their Order Entry (OE) Sessions for Production.**

Markets will close on the evening of Friday 22 June 2018 and all orders on UTP-Cash will be purged. On Monday 25 June 2018, markets will open with all segments on Optiq, i.e. Fixed income, Warrants and Certificates, Funds, Equities, Indices and Luxembourg Stock Exchange. The TCS service will also migrate to Optiq.

All orders placed through CCG will be rejected.

The new Optiq segments will open without any orders: Warrants and Certificates, Funds, Equities and Luxembourg Stock Exchange.

The Optiq Fixed Income segment will start up as usual on Monday, without taking the activity of Saturday 23 June 2018 into account. Customers are responsible for purging all market data and order entry data sent and received during any Saturday test.

PREFACE

PURPOSE

The purpose of this document is to provide customers with a detailed description of the Euronext Optiq® Migration week-end on Saturday 23 June 2018.

ASSOCIATED DOCUMENTS

This document should be read in conjunction with the following documents.

TITLE	DESCRIPTION
Euronext Optiq Phase 2: Order Entry Gateway (OEG) and Matching Engine (ME) Migration Guidelines	Guidelines for migration from UTP to Optiq
Optiq Euronext File Services User Guide	EFS user guide
Euronext Cash Markets - Optiq OEG Connectivity Configuration specifications	Description of the Production connectivity configuration
Euronext Cash and Derivatives Markets – Optiq File Specification	Description of the files for Cash and Derivatives
Euronext Cash and Derivatives Markets – Optiq MDG Client Specifications	To be used by all segments for phase 2
Euronext Cash Markets - Optiq OEG Client Specifications - SBE Interface	Optiq binary protocol specifications for phase 2
Euronext Cash Markets - Optiq OEG Client Specifications - FIX 5.0 Interface	Optiq FIX 5.0 protocol specifications for phase 2
Euronext Cash Markets - Optiq Kinematics Specifications	
Euronext Cash Markets - Optiq & TCS Error List	

DOCUMENT HISTORY

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

VERSION NO.	DATE	CHANGE DESCRIPTION
1.0	June 2018	First Version of migration Week-end Guidelines for Euronext Optiq® Phase 2: Order Entry Gateway (OEG) and Matching Engine (ME) on 23 June

SUPPORT

Please find below the Optiq Support Desk contact details, which has been established to ensure customer readiness by:

- sending information to customers related to Optiq
- answering customers' questions related to Optiq
- assisting customers in their testing and validation on the EUA environment
- providing follow-up on customer conformance testing
- assessing customers' state of readiness with regards to technical changes

Euronext Market Services Equities and Derivatives: Tel: +33 1 85 14 85 85 Email: optiq@euronext.com

Further Information

- For additional product information please visit: www.euronext.com/optiq
- For Optiq documentation please visit: www.euronext.com/optiq/en/documentation

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1. SCOPE OF THE TEST

1.1 TEST OVERVIEW

Customers are expected to conduct the following tests:

- Secure network resources on the day of the migration week-end to validate firewall / security path
- Connect to the Production environment
- Inject orders
- Purge the book at the end of the day and restore the order book to Friday night

1.2 ACCESS TO SERVICES & APPLICATIONS

Euronext services and applications will be set up as follows for the rehearsal:

- Optiq Order Entry and MDG Phase 2 for all new Cash Market Segments, TCS and Luxembourg Stock Exchange, including Drop Copy

1.3 DETAILS

Below please find details relevant to the Optiq Cash Order Entry (OEG) and Matching Engine (ME) migration week-end tests for Cash Segments on Saturday 23 June 2018.

Between 11:00 and 15:00 CEST, customers are required to:

- Connect to the Production environment:
 - Test and validate the new Optiq Order Entry logical connectivity on Cash market segment.
 - Log on through their OEG connections for Cash:
 - OEG connectivity for: Equities, Funds, Structured Products (Warrants, Certificates and Structured Notes), TCS and Luxembourg Stock Exchange (except for Fixed Income).
 - Drop Copy connectivity for all Cash Market segments (except for Fixed Income).
 - Perform Market Data checks on MDG Phase 2 (all Cash segments including Indices and excluding Fixed Income).
 - Check the market data broadcast via multicast by connecting their application/feed handler to Real time and Snapshot.
 - Retrieve required files from Euronext Files Services (EFS).
- Inject orders
 - For example
 - Any segment order through OEG (including TCS).
 - Any segment order through CCG to receive the expected error messages.
 - Customers can verify the publication of market data through the expected MDG channels.

SBE Template file: Optiq will use SBE templates for both OEG and MDG with schema version number 103, which are made available on the website and on the EFS. This version of SBE templates has no functional or structural modifications compared to 102, and is backward compatible. Clients are advised

to either update their SBE template to 103 or ensure that their applications are able to manage higher versions of SBE version 102.

- Purge the book at the end of the day and restore the order book to Friday night
 - This applies to orders sent through the CCG, through OEG and any internal data stored on the client side.

Between 15:00 and 17.00 CEST, Euronext will conduct further internal tests, including High Availability (HA) tests. Customers are not required to participate but can observe the HA mechanism if they wish to do so. More detail on timing and the segment of HA will be provided on Saturday 23 June via the Market Status page. .

At approximately 16:45 CEST, Euronext will issue an Info Flash confirming or not the Go-Live of Optiq on Monday 25 June 2018 on all Cash markets, Luxembourg Stock Exchange and TCS, subject to final validation.

2. OUT OF SCOPE

The following services / markets are out of scope for this rehearsal:

- Tests with LCH
- End of day files
- Derivatives markets
- Saturn
- Fixed income Optiq Segment

3. CUSTOMER SUPPORT

Customer support is provided as follows:

- On Saturday 23 June, support will be provided by Euronext Market Services (EMS) and the Optiq Support Desk from 11:00 to 15:30 CEST;

In the case of questions related to the tests, customers may contact the **Optiq Support Desk** ahead of the tests and during the migration week-end by email at optiq@euronext.com or **EMS** by phone at +33 1 8514 8585.

- Real-time events will be posted on the Market Status website during the migration weekend at: www.euronext.com/market-status

4. MAIN PRINCIPLES OF THE TEST

Customers will be notified to connect to the platform via the [Market Status webpage](#).

Upon confirmation of start of test customers should be able to connect to the Euronext OEGs and MDGs for the market segments below:

- Equities
- Funds
- Warrants and Certificates
- Luxembourg Stock Exchange

Customers will also be able to connect to TCS via their OE sessions, and will be able to see Indices Market Data via MDG Phase 2.

The sequence for market opening is the following:

- Euronext will start a pre-opening trading session
- As soon as Euronext considers that Cash markets are ready to be fully operational, a continuous trading session will be set up on Optiq. Customers are invited to make sure that their internal systems and access means are correctly synchronised with Euronext Optiq.

Euronext would like to make this test as realistic as possible in order to draw the most relevant and useful conclusions, and therefore encourages customers to participate actively by sending orders.

5. TRADING DATES DETAILS

The trading date used for the purposes of the test will be Saturday 23 June 2018. The order book situations will be those of Monday 25 June 2018 before the start of the pre-opening session, i.e. after the corporate events of the evening of Friday 22 June 2018, including:

- For all Cash segments that are open : no orders will be present in the book

Euronext invites customers to enter orders as they do in the Production environment.

MDG Standing data files for Cash markets will be made available on Saturday 23 June 2018 with the business date of Monday 25 June 2018. Please make sure you do not have any security in place that would prevent to process them.

5.1 PRE-REQUISITES FOR TAKING PART IN THE MIGRATION WEEK-END

It is mandatory for any customer expected to take part in the Migration week-end

- 1) To have validated their conformance test,**
- 2) To have confirmed Telnet connectivity to Production and**
- 3) To have ordered their OE Sessions for Production.**

Customers must have a Euronext File Services (EFS) account to access the Pre-Production Optiq Euronext File Services. Customers can request their account by contacting Customer Access Services (CAS):

- Phone: +33 1 85 148 589
- Email: cas@euronext.com

6. MIGRATION WEEK-END VALIDATION SCHEDULE

Note: All timings are approximate and are stated in CEST

Timeline	Action	Cash	Derivatives
11:00	<ul style="list-style-type: none"> Beginning of the test Referential Files are made available: <p>New Cash Standing Data File will be provided on the Euronext File Server for Equities, Funds, Warrants and Certificates and Luxembourg Stock Exchange Segments. All Derivatives Standing Data Files will remain as today, with no change to the format (Indices, Fixed income, Indices and TCS will not be made available)</p> <ul style="list-style-type: none"> New OEG and MDG SBE template file for each individual Cash segment listed above will be provided on Euronext File Server (version 103) 	✓	No
11:30	<ul style="list-style-type: none"> Participants are invited to check the status and timeline on the Market Status web page Market Data: Optiq MDG Cash Technical “Start Of Day” messages should be broadcasted over Cash MDG Production multicast channels 	✓	No
11:45	<ul style="list-style-type: none"> Euronext Optiq MDG Cash real-time Standing Data messages will be provided over MDG Production multicast channels Order Entry: Customers can validate their systems and connect their applications to the Euronext Production central systems: <ul style="list-style-type: none"> Optiq Order Entry available via OEG No Order Entry available via CCG 	✓	No
12:45	<ul style="list-style-type: none"> Start of pre-opening phase (Call) in Production for Equities, Funds, Warrants and Certificates and Luxembourg Stock Exchange Segments. Customers can connect and send orders to the Optiq OEG on these Cash segments. 	✓ ✓	No No
13:00	<ul style="list-style-type: none"> Opening and Continuous Trading Session for the Cash segments available. Customers can inject orders and perform trades on the Cash segments available. 	✓ ✓	No No
15:00	<ul style="list-style-type: none"> End of customer tests Customers can disconnect from Euronext central systems A Market Status message is sent confirming the end of the Migration week-end 	✓ ✓ ✓	No No No
15:00 17:00	<ul style="list-style-type: none"> Euronext will conduct internal tests including High Availability (HA) tests. 	✓	No

7. IMPORTANT REMINDERS

During the test, Euronext will not be able to broadcast the real-time Cash Standing data messages over Optiq Market Data twice. Customers who have missed the broadcast of the referential data are requested to use the Optiq Cash Standing Data files made available on the [EFS](#).

Customers who have missed the Dress Rehearsals dates will be able to test access to Production on this migration week-end. Euronext will not consider any requests or potential customer issues encountered on the day of the Production migration if the customer has not taken part in the prior mandatory Dress Rehearsal or on the migration week-end.

8. ROLL-BACK FOR CUSTOMERS' INTERNAL SYSTEMS

Upon completion of the migration week-end, customers must restore/rollback their internal Production systems to the functional state of Friday 22 June 2018 evening after the end of the trading session, with the purged order books on Equities, Funds, Warrants & Certificates and Luxembourg Stock Exchange. It is very important that customers do NOT synchronise their order book with the data from the **tests** performed on Saturday 23 June 2018.

The Saturday 23 June 2018 session will not be taken into account in the Live/Production environment which will start on Monday 25 June 2018 as usual. Customers are requested to ensure their readiness for the next trading day's activities following any Saturday test.

Customers are responsible for purging all market data and order entry data sent and received during any Saturday test.

9. CONTACTS

- On Saturday 23 June 2018, Euronext Market Services (EMS) Equities will manage the Pre-Production support of Optiq Phase 2:
 - **Euronext Market Services Equities**
 - optiq@euronext.com
 - Tel: +33 1 85 14 85 85