

MEMBER GUIDELINES

- 1. DISASTER RECOVERY TEST 11 JULY 2020
- 2. ORDER ENTRY SECURITY ENHANCEMENT TEST 11 JULY 2020

SCOPE OF THE TEST

		D = 0 0 \ / = 0 \ / = 0 = 0	
1	THEACHED	RECOVERY TEST	
1.	DISASTEN	INLCOVENT TEST	

	1. DISASTER RECOVERY TEST
•	Both production trading systems of Euronext's Data Centres (DC):
	 DC1 located at Basildon (UK) from 10:30 to 13:00 CEST and DC2 (Disaster Recovery) located at Saint Denis (Paris region) from 15:00 to 16:30 CEST.
•	Trading engines:
	 Optiq Cash Markets: Equities, Funds, Warrants & Certificates, Fixed Income, Trade Confirmation System (TCS), Transaction Reporting and Publication System (Saturn) and Index platform. Optiq Derivatives Markets: Equity Derivatives, Index Derivatives and Commodities.
	2. ORDER ENTRY SECURITY ENHANCEMENT TEST
•	Both production trading systems of Euronext's Data Centres (DC):
	 DC1 located at Basildon (UK) from 10:30 to 13:00 CEST and DC2 (Disaster Recovery) located at Saint Denis (Paris region) from 15:00 to 16:30 CEST.
•	Trading engines:
	 Optiq Cash Markets: Order Entry (OEG) and Drop-Copy for Equities, Funds, Warrants & Certificates, Fixed Income segments. Optiq Derivatives Markets: Order Entry (OEG) and Drop-Copy for Equity Derivatives, Index Derivatives and Commodities segments.

OUT OF SCOPE

- Co-location accesses.
- Post-trade systems: trades will not be integrated in the clearing system and no clearing members will be involved in this test.

MAIN PRINCIPLES

1. DISASTER RECOVERY TEST

- Euronext will simulate a failover of DC1 to DC2 during the continuous trading session and will manage the transfer through the appropriate decision-making process.
- As soon as Euronext considers DC2 to be fully operational, a pre-opening session and a trading session will be set up on Optiq Cash & Derivatives, and customers will be informed of the readiness status to reconnect via <u>Market Status Page</u>.
- Customers are responsible for making sure that their internal systems and access means are correctly synchronised with Euronext Central System.

2. ORDER ENTRY SECURITY ENHANCEMENT TEST

- Euronext will implement a security enhancement on the private SFTI and Colocation addresses for Optiq Cash & Derivatives Order Entry access. This security enhancement will be effective as from Saturday 11 July 2020.
 It will be applied to both Euronext Production systems (including Disaster Recovery environment), based on the network IP range for Firm ID communicated by the firm's MCA.
- During a standard pre-opening and subsequent trading session on the Cash & Derivatives Markets, customers will be able to validate a successful logon for any of their Order Entry and Drop Copy connections.
- The security enhancement implemented is processed during the logon kinematics (at application level), then, the network telnet function, cannot be consider as a validation for this security implementation.

CUSTOMER PARTICIPATION

Euronext strongly encourages all customers to participate actively. As a reminder, the registration is available here to participate to the test:

1. DISASTER RECOVERY TEST

https://connect2.euronext.com/en/form/euronext-disaster-recovery-test

2. ORDER ENTRY SECURITY ENHANCEMENT TEST

https://connect2.euronext.com/en/form/euronext-dress-rehearsal-test

COMMUNICATION

During the test , Euronext will keep all customers informed through the Live Market Status web page:

www.euronext.com/market-status

TRADING DATE DETAILS

The trading date used for the purposes of the test will be Saturday 11 July 2020. The order book state will be as of **Monday 13 July 2020** before the start of the pre-opening session, i.e. after the corporate events on Friday evening 10 July 2020.

Euronext recommends members to enter orders as they do in the Production environment.

DR TEST SCHEDULE FOR CASH & DERIVATIVES MARKETS

Note: All timings are approximate and are stated as CEST

Timeline	Action	
10:30	Beginning of the test	
	Participants are invited to check the status and timeline on the Market Status web	
	<u>page</u>	
11.00	Customers start their systems and connect their applications to Europeyt DC1	
11:00	Customers start their systems and connect their applications to Euronext DC1 central systems	
11:00	Market data referential messages will be published	
11:30	On DC1:	
	Pre-opening phase (Core call) on DC1	
	Customers can connect and send orders to the trading platform.	
11:45	Opening and Continuous Trading Session	
	Customers can trade on all trading engines (including TCS)	
13:00 - 13:30	Approximate time of the disaster event	
	Beginning of the failover from DC1 to DC2	
	No Order Entry access would mean client is now disconnected from Markets.	
	Market Status message: Trading halt and fail-over on DC2 due to a disaster event on Euronext Markets.	
	Euronext will then complete the failover procedure from DC1 to DC2 and carry out all necessary assessment to check the platform readiness of DC2. Customers will then be given our readiness status to reconnect. Members must shift their network connection to DC2 as explained in Optiq OEG connectivity Specifications.	
15:00	Market Data heartbeat messages will be sent on Market Data multicast channels from DC2 allowing customers to check their Market Data feed reception from Euronext Disaster Recovery site.	
	Market Status message: Trading platform in DC2 is available to connect.	
15:15	Euronext advises clients that DC2 is ready, authorizing Order Entry connections.	
	Market Status message: Trading to resume on DC2	
15:30	Pre-opening period on DC2: Customers may send orders	
15:45	Opening and Continuous Trading Session on DC2: Customers can trade on Euronext Market.	
16:30	End of the test	
	Customers can disconnect from Euronext central systems	
	Market Status message: End of the Disaster Recovery tests	

	 After the test, customers must roll back their internal systems to the situation of the evening of Friday, 10 July 2020 (after corporate events and order cancellations).
Post 17:00	Member firms should confirm the Disaster Recovery test results as will be specified in the Market Status Message.

IMPORTANT REMINDERS

- During the fail-over from DC1 to DC2, for Cash & Derivatives markets, no market data will be available in the MDG feed (not even heartbeat messages) until the complete start-up of DC2.
- During the fail-over from DC1 to DC2, for Cash & Derivatives markets, Order Entry and Drop-Copy connectivity will be stopped until the complete start-up of DC2.
- During the test, Euronext will restart the markets on DC2 with a full order book on Cash & Derivatives markets as it was at the time of the disaster event on DC1.
- As the order books on DC2 will then become the Market of Reference, customers will need to manage the synchronization of the local data with the data sent by DC2 trading engines.
- Referential market data:

The referential market data will only be sent one time from DC1 around 11:00 CET. No new referential market data will be sent to the customer from DC2. However Standing Data File are available on EFS.

REQUIRED DOCUMENTATION

EURONEXT SERVICE	TITLE	DESCRIPTION
Euronext File Service	Optiq Euronext File Services User Guide	EFS user guide
Euronext Market Data gateway feed configuration	EURONEXT OPTIQ MARKET DATA GATEWAY PRODUCTION ENVIRONMENT	Market data parameters: No change, excepted "Colocation member". same flows used than for Prod
Order Entry Gateway connectivity	EURONEXT MARKETS – OPTIQ® OEG CONNECTIVITY SPECIFICATIONS	Description of the connectivity configuration for Prod and DR

ROLL-BACK FOR CUSTOMERS' INTERNAL SYSTEMS

Upon completion of the DR test, members must restore/rollback their internal Production systems to the state as of Friday 10 July 2020 evening (after corporate events). It is very important that members do NOT synchronize their order book with data from Saturday 11 July 2020.

The Saturday 11 July 2020 session will not be taken into account in the Live/Production environment which will start on Monday 13 July 2020 as usual. Customers are requested to ensure their readiness for the next trading day's activities following any Saturday disaster recovery test.

Members are responsible for purging all market data and order entry data sent and received during the Saturday disaster recovery test.

CONCLUSION

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.

Euronext will communicate the test results for Disaster Recovery at the beginning of the following week.

CLIENT SUPPORT

Client Support team will be available during the Test on 11 July 2020 for any additional questions from 10.30 till 17:00 CEST.

Operational Client Services Desk

Telephone:

 Belgium:
 +32 2620 0585
 |
 Portugal:
 +351 2 1060 8585

 France:
 +33 1 8514 8585
 |
 Netherlands:
 +31 20 721 9585

 Ireland:
 +353 1 6174 289
 |
 UK:
 +44 207 660 8585

Email: clientsupport@euronext.com