EURONEXT

Document title

COMMON FILE TRANSFER SYSTEM – MEMBER USER GUIDE

Document type or subject

MEMBERS USER GUIDE - EURONEXT CASH AND DERIVATIVES MARKET

Revision number	Date
Revision Number: 5.23.0	7 Mar 2023

Number of pages	Author
26	Euronext IT Market Services

PREFACE

PURPOSE

The purpose of this document is to provide general technical information about Euronext Common File Transfer System Services. Euronext Common File Transfer System (CFTS) provides file distribution services to customers that have either an EMDDA (market data), SPA (Service Provider) or TPA (Trading Platform) agreement to get access to the core trading chain of Euronext.

TARGET AUDIENCE

This document should be read by Developers, Exchange Connectivity Managers, Trading Support Teams and anybody involved in the setup and the configuration of Optiq MDG solution in End User Acceptance (EUA) and Production environments.

SUPPORT

Please find below the contact details:

- Operational Client Services Desk: optiqmigration@euronext.com
- Belgium +32 2 620 0585
- France +33 1 8514 8585
- Ireland +353 1 617 4289
- Netherlands +31 20 721 9585
- Portugal +351 2 1060 8585
- UK +44 20 7660 8585

WHAT'S NEW?

The following lists only the most recent modification made to this revision/version. For the Document History table, see the Appendix.

REVISION NO./ VERSION NO.	CHANGE DESCRIPTION
5.23.0	Inclusion of LP_OBLIGATIONS file in the Referential Data Service, Current, folder

ASSOCIATED DOCUMENTS

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

- Euronext Cash and Derivatives Markets – Optiq Files – Interface Specification
- Euronext Cash and Derivatives Markets – Web Secured Communication Standards – Technical Specification
- MyEuronext – CFTS – Members – User Guide

CONTENTS

1 OVERVIEW

The Common File Transfer System (CFTS) is designed to centralize access to configuration and data files for customers via Euronext private Colocation/CMC network and the Internet. This new critical service is based on a resilient and secured infrastructure. Separate domain names will exist per environment.

MyEuronext CFTS offers online access through https, enabling online access management of MyEuronext trading member contacts to CFTS data services, browsing of data service folders and the downloading of files. MyEuronext CFTS access management includes the saving of SFTP SSH public keys generated by trading members.

CFTS SFTP services utilizes the SSH key pairs authenticate and encryption. Customers must generate their own SSH keys pairs and register their public key with Euronext to gain access to file locations. SFTP public keys are used for authentication, instead of using passwords. The public key authentication uses a pair of keys, one private and one public.

Customers covered by this Euronext Common File Transfer System are companies who have signed one of the following agreements:

- Euronext Market Data Distribution Agreement (EMDDA)
- Service Provider Agreement (SPA)
- Trading Platform Agreement (TPA)

In addition customers wishing to utilize the MyEuronext CFTS application, must have agreed the MyEuronext website terms and conditions.

Euronext will deliver additional file distribution services and functionality through CFTS in future releases. Additional CFTS services, will offer both standard and customized private files per trading member, thereby becoming the hub for file transfer between Euronext and clients.

Commented [FB1]: MyEuronext T&C need to be signed by all clients in addition to any of the others. So this should probably be: "...signed one of the following agreement: EMDA, SPA or TPA. In addition all clients should have signed the MyEuronext T&C before being able to access the service.". Or something similar.

Commented [CO2R1]: Thank you, please see the updated text below

Commented [CO3R1]:

2 CFTS SERVICE ACCESS

CFTS Services can be accessed either through SFTP or the MyEuronext CFTS web based application.

2.1 MYEURONEXT CFTS APPLICATION ACCESS

To gain access to the MyEuronext CFTS web based application, trading member contacts must be registered on the MyEuronext website. The customers' Member Connectivity Administrator (MCA) must grant MyEuronext contacts a CFTS user role, assign CFTS services and access methods.
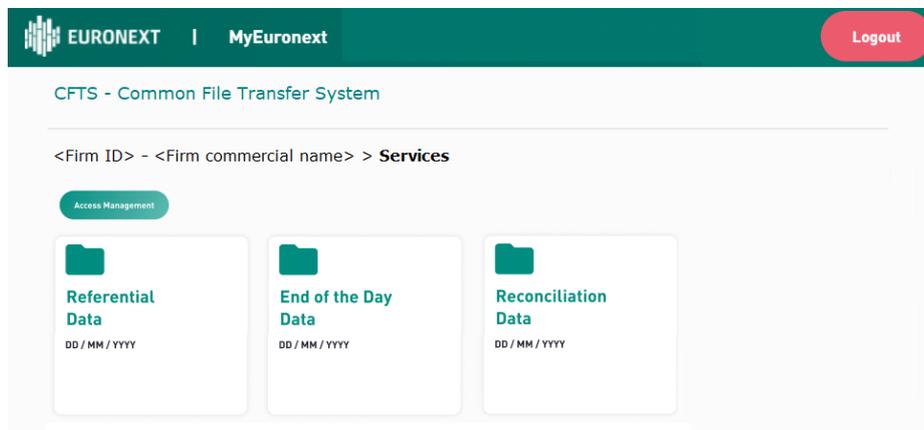
For details on MyEuronext website CFTS application please see the latest version of the MyEuronext – CFTS – Members – Users Guide, on the Euronext Connect Customer Portal.

.

2.2 CFTS SFTP SERVICE ACCESS

To gain access to the CFTS SFTP, members must have generated and saved their SFTP SSH public key on MyEuronext CFTS application (see MyEuronext – CFTS – Members – User Guide).

Secure Socket Shell (SSH), also called Secure Shell, creates a secure connection when you access a remote server. Secure File Transfer Protocol (SFTP) uses SSH and provides a secure way to transfer files between computers. SSH in SFTP Servers is an encrypted network protocol that uses public key cryptography to create a more secure method to authenticate a client's identity and rights to access a server.

Authorized and authenticated trading members can gain CFTS SFTP access, either through internet and Colocation/CMC networks. SFTP connections will be authenticated using SSH protocol key pairs. Trading members must generate their own public and private keys, with the public key being saved against their Euronext CFTS client user role. The member's private keys must be kept secure and stored locally on their own network. Access to the SFTP folder locations can only be secured by using a combination of the public and private keys (key pairs), and with access being granted to the SFTP access method on MyEuronext CFTS.
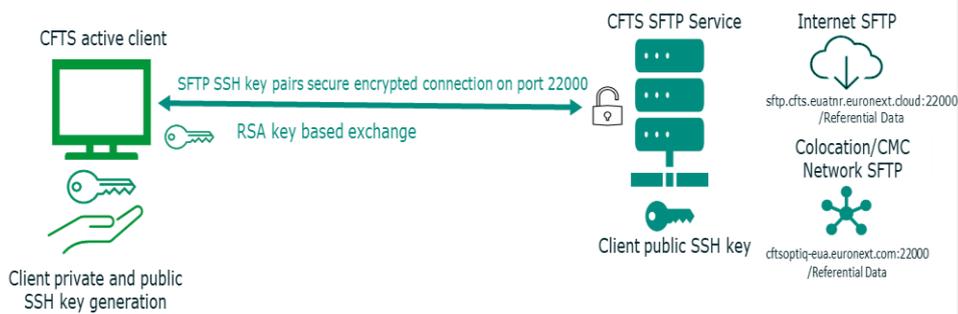
3 PRE-REQUISITES

As a pre-requisite, customers are required to have a company agreement signed with Euronext (EDDA, SPA or TPA). And signed the MyEuronext website terms and conditions.

To access the CFTS SFTP data folders in both Next EUA and Production, the customers' MCA must have completed the CFTS user setup and saved their SSH public key on MyEuronext CFTS .

Only contacts registered on MyEuronext website, granted a CFTS user role, and assigned CFTS services, can access CFTS data services. For more information about MCAs and their registration, please check the Connect Membership Webforms User Guide

3.1 UPDATES TO AUTHENICATION ATTRIBUTES

Changes to the SSH public keys or CFTS registered user email addresses should be submitted through MyEuronext CFTS web based application.

3.2 CFTS SERVICE DOMAIN NAMES

The table below provides the domain names used to connect to MyEuronext CFTS and CFTS SFTP data services.

The Referential Data Service is available to trading members via the Colocation/CMC network and the network. All other CFTS Services are available through the internet only.

NETWORK	ENVIRONMENT	DOMAIN NAME	IP ADDRESS
Colocation/ CMC Access	Next EUA	cftsoptiq-eua.euronext.com	212.107.67.18
	Next EUA Backup (in case of primary failure)	cftsoptiq-eua-backup.euronext.com	212.107.67.19
	Production	cftsoptiq-prod.euronext.com	212.107.67.2
	Production Backup (in case of primary failure)	cftsoptiq-prod-backup.euronext.com	212.107.67.3
Internet Access	Next EUA	sftp.cfts.euatnr.euronext.cloud	Cloud IP addresses are dynamic
	Production	sftp.cfts.prodnr.euronext.cloud	Cloud IP addresses are dynamic
Website Access	Next EUA	https://eua-connect.euronext.com/	N/A
	Production	https://connect2.euronext.com/	N/A

Euronext CFTS SFTP service is on Port 22000. And will authenticate connectivity based on the registered CFTS user email address with both client private and public SSH keys.

For MyEuronext CFTS web based application access please reference the latest version of MyEuronext – CFTS – Members – User guide, on the Euronext Connect Customer Portal.

4 SFTP SSH KEY GENERATION

SFTP SSH public and private keys can be generated using a number of different proprietary applications and operating systems. For the purposes of illustration, Microsoft WinSCP, was used to provide an example of generating SSH keys.

Steps to generate SSH keys

1. Open WinSCP

2. Select New Site

3. Populate the following field values and select Save

FIELD	VALUE
File protocol	SFTP
Host name	sftp.cfts.euatnr.euronext.cloud
Port number	22000
User name	CFTS user email account registered with Euronext
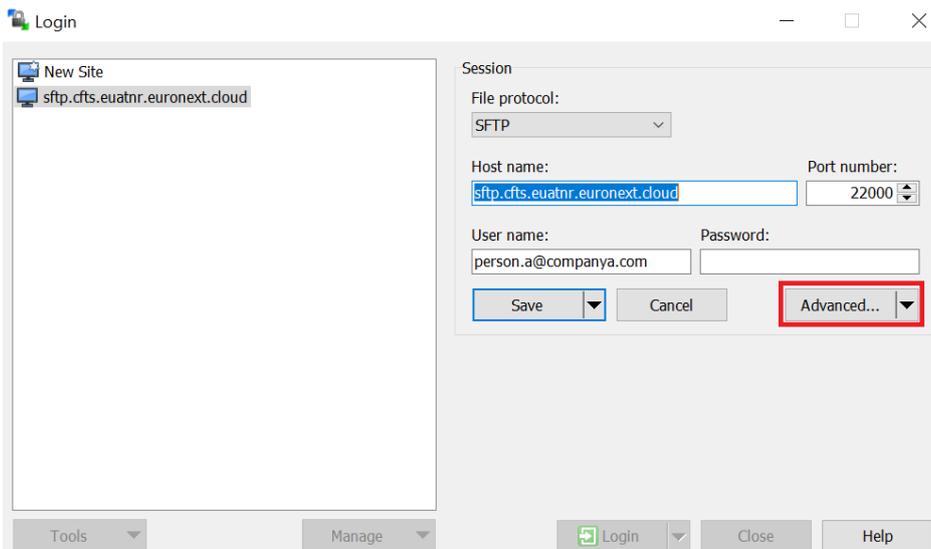
4. Select Advanced, Authentication, Tools, Generate New Key Pair with PuTTYgen.
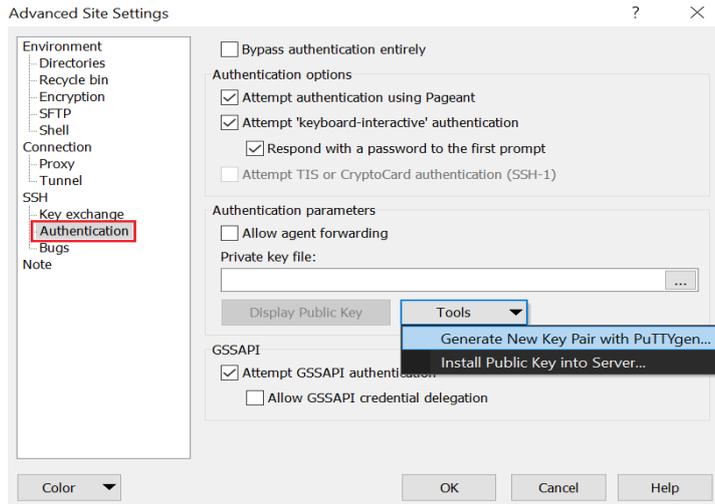
5. Select, Generate.

Ensure the type of key to generate, RSA, is selected and the default number of bits is 2048.
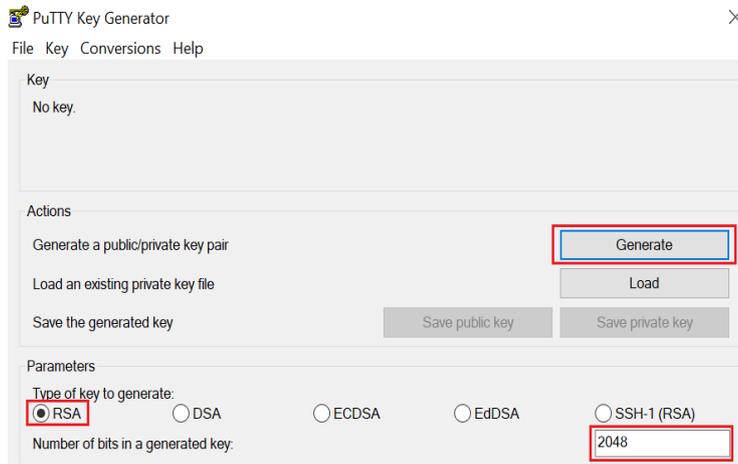
6. Select, Save public key.
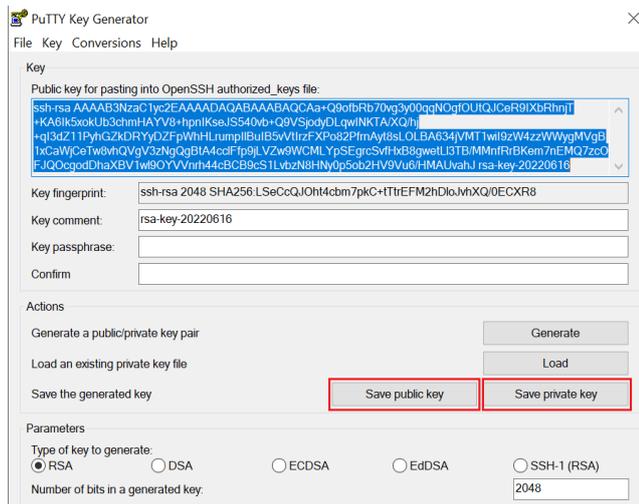
7. The SSH public key generated must be saved by the company's MCA on the My Euronext CFTS web based application against the users that want to access the CFTS services through SFTP.

8. Repeat the key generation for the private key. And select save private key.

The private generated should be saved locally only.

9. Select Login to view sftp.cfts.euatnr.euronext.cloud folders and files.
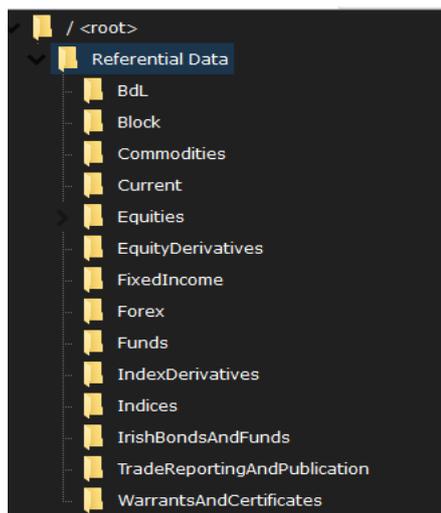
5 CFTS REFERENTIAL DATA SERVICE SUMMARY

Euronext CFTS Referential data service provides key Optiq data referential data files.
Optiq referential data files will be available for download before the start of each trading day. And will provide an online archive of referential data files for the last five trading days.

The Current folders contain the latest files Optiq referential data files for an environment and per Optiq segment.

Root folder : Referential

Current

Current folder, contains the latest dataset for all Optiq segments

Optiq referential data files (.zip, .csv, .xml, .txt)

Optiq segment

Optiq segment folders, contain the latest datasets for each Optiq segment

Current

Optiq referential data files per segment (.zip, .csv, .xml, .txt)
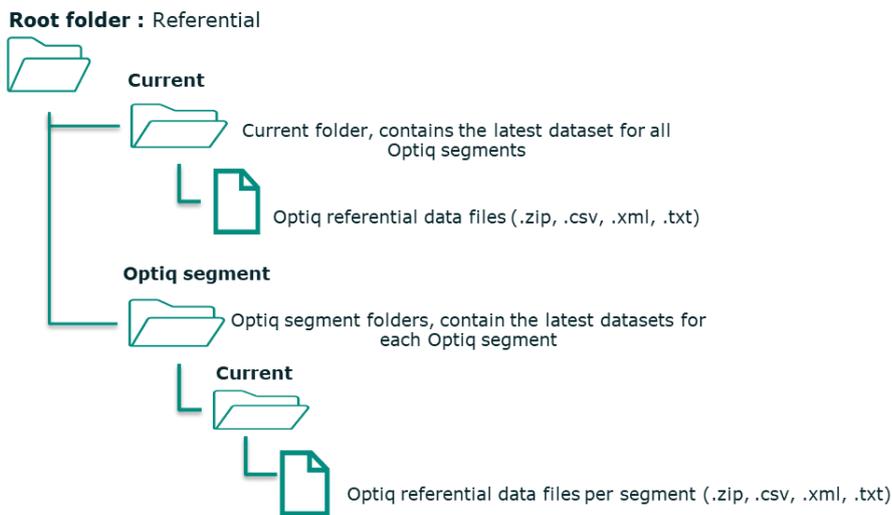
5.1 REFERENTIAL DATA FILES PER ENVIRONMENT

Separate domain names will exist per environment.

The Current environment folder contains the latest files Optiq referential data files for all Optiq segments.

REFERENTIAL DATA FILES PER ENVIRONMENT	DESCRIPTION
CashTickSizeReferentialFile_All	The Tick size file contains different tables defining the variable tick sizes used for trading activity
MembershipMappingFile_All	Firm ID, Firm name, Instrument group code, LEI code for all members
RepoSettlementPriceFile_All	Repo Settlement Price File is used to communicate the previous day settlement price for each repo instruments
Euronext RLP Universe	Euronext RLP (Retail Liquidity Provider) Universe file
MBR_FAMINSTR	Instrument families categorization
LP_OBLIGATIONS	Liquidity Providers Obligations file

5.2 REFERENTIAL DATA FILES PER OPTIQ SEGMENT

Files available per Optiq segment folder are as follows and will be provided in XML format:

REFERENTIAL DATA FILES PER OPTIQ SEGMENT	DESCRIPTION
CashStandingData File	The Cash Standing Data file provides Referential Data for cash markets
CashTickSizeReferential File	The Tick size file contains different tables defining the variable tick sizes used for trading activity
DerivativesStandingData File	The Derivatives Standing Data files provides Referential Data for derivatives markets, containing Contract Standing Data, Outright Standing Data and Strategies Standing Data
DerivativesTickSize File	The Tick size file contains different tables defining the variable tick sizes used for trading activity
OpenInterest File	Open Interest file provide open interest information provided by LCH on derivatives instruments
ReferenceSpreads File	Reference Spreads File provide data to calculate Dynamic Collar Reference Price when Reference Price Origin is set to 'Mid-BBO or Fair Value' and data to calculate Dynamic Collars
PrevDayCapAndVolTrade File	Previous Day Capital and Volume Traded file provides: Previous Volume Traded and Previous Day Capital Traded information
TimetableFile File	The Timetable file indicates the scheduled trading patterns, on a given day, associated to a Symbol Index linked by the Pattern ID
RepoSettlementPrice File	Repo Settlement Price File is used to communicate the previous day settlement price for each repo instruments
TRF Conversion Parameters File	The Total Return Futures (TRF) file provides contract Referential Data: Contract code, Maturity, Number of days to expiry, Daily Settlement Price. Pricing of Funding leg and Dividend leg: Daily accrued funding, daily accrued dividend, Accumulated funding, Accumulated dividend
SBETemplates (for MDG and OEG)	Simple Binary Encoding (SBE) is the open-source binary protocol used as the solution for market data and order entry messaging in Optiq. SBE was designed within the FIX Protocol Limited organization, with a focus on low band width utilization and the goal of producing a binary encoding solution for low-latency financial trading. Templates define structure and content messages.
Authorized Price Fluctuation File	The Authorized Price Fluctuation file details the Authorized Price Fluctuation (APF) tables, on a given day. The APF tables are used in the context of Static, Dynamic and Order Price Control Collars. Using the instrument price as a key, the APF table allows to deduce the corresponding Allowed Price Fluctuation.

5.3 REFERENTIAL DATA SERVICE DIRECTORY

The referential data service directory can be found under the folder /Referential Data, on the CFTS SFTP domain.
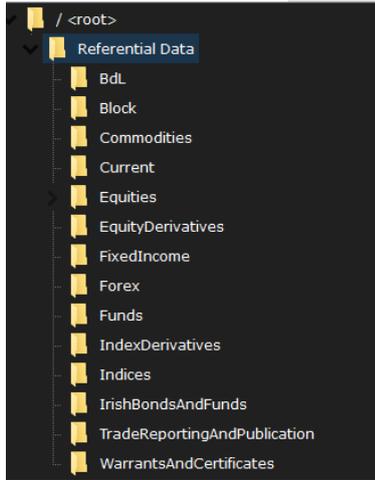
5.4 REFERENTIAL DATA SERVICE FILE LIST

The table below lists the files that will be made available through CFTS SFTP Referential Data Service for download.

Output folder path	File naming convention
BdL/Current/	OptiqOEG_<ENV>_SBETemplate_BdL_<yyyyMMdd>.xml
BdL/Current/	OptiqMDG_<ENV>_SBETemplate_BdL_<yyyyMMdd>.xml
BdL/Current/	OptiqMDG_<ENV>_AuthorizedPriceFluctuationFile_BdL_<yyyyMMdd>.xml
Block/Current/	OptiqMDG_<ENV>_AuthorizedPriceFluctuationFile_Block_<yyyyMMdd>.xml
Block/Current/	OptiqMDG_<ENV>_CashStandingDataFile_Block_<yyyyMMdd>.xml
Block/Current/	OptiqMDG_<ENV>_TimeTableFile_Block_<yyyyMMdd>.xml
Commodities/Current/	OptiqOEG_<ENV>_SBETemplate_Commodities_<yyyyMMdd>.xml
Commodities/Current/	OptiqMDG_<ENV>_SBETemplate_Commodities_<yyyyMMdd>.xml
Commodities/Current/	OptiqMDG_<ENV>_OpenInterestFile_Commodities_<yyyyMMdd>.xml
Commodities/Current/	OptiqMDG_<ENV>_ReferenceSpreadsFile_Commodities_<yyyyMMdd>.xml
Commodities/Current/	OptiqMDG_<ENV>_CashTickSizeReferentialFile_Commodities_<yyyyMMdd>.xml
Commodities/Current/	OptiqMDG_<ENV>_TimeTableFile_Commodities_<yyyyMMdd>.xml
Commodities/Current/	OptiqMDG_<ENV>_DerivativesStandingDataFile_Commodities_<yyyyMMdd>.xml
Commodities/Current/	OptiqMDG_<ENV>_DerivativesTickSizeFile_Commodities_<yyyyMMdd>.xml
Current/	OptiqMDG_<ENV>_RepoSettlementPriceFile_ALL_<yyyyMMdd>.xml
Current/	OptiqMDG_<ENV>_MemberMappingFile_ALL_<yyyyMMdd>.xml
Current/	IDSCash_<ENV>_MBR_FAMINSTR_<yyyyMMdd>.txt
Current/	IDSCash_<ENV>_Euronext-RLPUniverse_<yyyyMMdd>.csv

Output folder path	File naming convention
Current/	OptiqMDG_<ENV>_CashTickSizeReferentialFile_ALL_<yyyyMMdd>.xml
Current/	IDSCash_<ENV>_LP_OBLIGATIONS_<CountryCode XX>_<yyyyMMdd>_<versionNo>.csv.gz
Equities/Current/	OptiqOEG_<ENV>_SBETemplate_Equities_<yyyyMMdd>.xml
Equities/Current/	OptiqMDG_<ENV>_SBETemplate_Equities_<yyyyMMdd>.xml
Equities/Current/	OptiqMDG_<ENV>_AuthorizedPriceFluctuationFile_Equities_<yyyyMMdd>.xml
Equities/Current/	OptiqMDG_<ENV>_PrevDayCapAndVolTradFile_Equities_<yyyyMMdd>.xml
Equities/Current/	OptiqMDG_<ENV>_TimeTableFile_Equities_<yyyyMMdd>.xml
Equities/Current/	OptiqMDG_<ENV>_CashStandingDataFile_Equities_<yyyyMMdd>.xml
EquityDerivatives/Current/	OptiqMDG_<ENV>_DerivativesStandingDataFile_EquityDerivatives_<yyyyMMdd>.xml
EquityDerivatives/Current/	OptiqOEG_<ENV>_SBETemplate_EquityDerivatives_<yyyyMMdd>.xml
EquityDerivatives/Current/	OptiqMDG_<ENV>_SBETemplate_EquityDerivatives_<yyyyMMdd>.xml
EquityDerivatives/Current/	OptiqMDG_<ENV>_OpenInterestFile_EquityDerivatives_<yyyyMMdd>.xml
EquityDerivatives/Current/	OptiqMDG_<ENV>_TimeTableFile_EquityDerivatives_<yyyyMMdd>.xml
EquityDerivatives/Current/	OptiqMDG_<ENV>_ReferenceSpreadsFile_EquityDerivatives_<yyyyMMdd>.xml
EquityDerivatives/Current/	OptiqMDG_<ENV>_CashTickSizeReferentialFile_EquityDerivatives_<yyyyMMdd>.xml
EquityDerivatives/Current/	OptiqMDG_<ENV>_DerivativesTickSizeFile_EquityDerivatives_<yyyyMMdd>.xml
FixedIncome/Current/	OptiqOEG_<ENV>_SBETemplate_FixedIncome_<yyyyMMdd>.xml
FixedIncome/Current/	OptiqMDG_<ENV>_SBETemplate_FixedIncome_<yyyyMMdd>.xml
FixedIncome/Current/	OptiqMDG_<ENV>_AuthorizedPriceFluctuationFile_FixedIncome_<yyyyMMdd>.xml
FixedIncome/Current/	OptiqMDG_<ENV>_PrevDayCapAndVolTradFile_FixedIncome_<yyyyMMdd>.xml
FixedIncome/Current/	OptiqMDG_<ENV>_TimeTableFile_FixedIncome_<yyyyMMdd>.xml
FixedIncome/Current/	OptiqMDG_<ENV>_CashStandingDataFile_FixedIncome_<yyyyMMdd>.xml
Forex/Current/	OptiqMDG_<ENV>_SBETemplate_Forex_<yyyyMMdd>.xml
Forex/Current/	OptiqMDG_<ENV>_CashStandingDataFile_Forex_<yyyyMMdd>.xml
Funds/Current/	OptiqMDG_<ENV>_SBETemplate_Funds_<yyyyMMdd>.xml
Funds/Current/	OptiqMDG_<ENV>_AuthorizedPriceFluctuationFile_Funds_<yyyyMMdd>.xml
Funds/Current/	OptiqMDG_<ENV>_PrevDayCapAndVolTradFile_Funds_<yyyyMMdd>.xml
Funds/Current/	OptiqMDG_<ENV>_TimeTableFile_Funds_<yyyyMMdd>.xml
Funds/Current/	OptiqMDG_<ENV>_CashStandingDataFile_Funds_<yyyyMMdd>.xml
Funds/Current/	OptiqOEG_<ENV>_SBETemplate_Funds_<yyyyMMdd>.xml
IndexDerivatives/Current/	UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_SOD_<yyyyMMdd>.xml
IndexDerivatives/Current/	UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_SOD_<yyyyMMdd>.csv
IndexDerivatives/Current/	UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_EOD_<yyyyMMdd>.xml
IndexDerivatives/Current/	UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_EOD_<yyyyMMdd>.csv
IndexDerivatives/Current/	OptiqMDG_<ENV>_SBETemplate_IndexDerivatives_<yyyyMMdd>.xml
IndexDerivatives/Current/	OptiqMDG_<ENV>_OpenInterestFile_IndexDerivatives_<yyyyMMdd>.xml
IndexDerivatives/Current/	OptiqMDG_<ENV>_DerivativesTickSizeFile_IndexDerivatives_<yyyyMMdd>.xml
IndexDerivatives/Current/	OptiqMDG_<ENV>_CashTickSizeReferentialFile_IndexDerivatives_<yyyyMMdd>.xml
IndexDerivatives/Current/	OptiqMDG_<ENV>_TimeTableFile_IndexDerivatives_<yyyyMMdd>.xml
IndexDerivatives/Current/	OptiqMDG_<ENV>_DerivativesStandingDataFile_IndexDerivatives_<yyyyMMdd>.xml
IndexDerivatives/Current/	OptiqOEG_<ENV>_SBETemplate_IndexDerivatives_<yyyyMMdd>.xml

Output folder path	File naming convention
IndexDerivatives/Current/	OptiqMDG_<ENV>_ReferenceSpreadsFile_IndexDerivatives_<yyyyMMdd>.xml
Output folder path	**File naming convention**
Indices/Current/	OptiqMDG_<ENV>_SBETemplate_Indices_<yyyyMMdd>.xml
Indices/Current/	OptiqMDG_<ENV>_CashStandingDataFile_Indices_<yyyyMMdd>.xml
IrishBondsAndFunds/Current/	OptiqMDG_<ENV>_SBETemplate_IrishBondsAndFunds_<yyyyMMdd>.xml
TradeReportingAndPublication/Current/	OptiqMDG_<ENV>_SBETemplate_TradeReportingAndPublication_<yyyyMMdd>.xml
WarrantsAndCertificates/Current/	OptiqMDG_<ENV>_TimeTableFile_WarrantsAndCertificates_<yyyyMMdd>.xml
WarrantsAndCertificates/Current/	OptiqMDG_<ENV>_SBETemplate_WarrantsAndCertificates_<yyyyMMdd>.xml
WarrantsAndCertificates/Current/	OptiqMDG_<ENV>_AuthorizedPriceFluctuationFile_WarrantsAndCertificates_<yyyyMMdd>.xml
WarrantsAndCertificates/Current/	OptiqMDG_<ENV>_PrevDayCapAndVolTradFile_WarrantsAndCertificates_<yyyyMMdd>.xml
WarrantsAndCertificates/Current/	OptiqMDG_<ENV>_CashStandingDataFile_WarrantsAndCertificates_<yyyyMMdd>.xml
WarrantsAndCertificates/Current/	OptiqOEG_<ENV>_SBETemplate_WarrantsAndCertificates_<yyyyMMdd>.xml

5.5 FILE SPECIFICATIONS

For all details of individual file specifications please reference the latest version of the Euronext Cash and Derivatives Markets – Optiq Files - Interface Specifications – External on the Euronext Connect Customer Portal.

Also see the latest file specifications, Euronext Markets – Member Mapping File Specification.

6 CFTS RECONCILIATION DATA SERVICE SUMMARY

Euronext CFTS Reconciliation Data service provides key private Optiq trading reconciliation files, per trading member firm ID, that are generated in the event of an incident on the Optiq trading platform. Private Optiq trading reconciliation files will be available for download, in dedicated folders per trading member, in the event of an incident with the Optiq trading platform.

Trading members identified by Euronext as liquidity providers will have access to a Supplementary Liquidity Providers (SLP) folder, to download the Euronext SLP Universe file.

Connectivity to the Reconciliation Data Service can be made through the internet only (see section 3.1).

Root Directory: Reconciliation

SLP Folder: /Reconciliation Data/SLP/

One Euronext SLP Universe file (.csv) will be distributed to all trading member identified as liquidity providers by the Euronext Liquidity Management Team

Euronext Trading Member Firm ID e.g. 101, sftp.cfts.euatnr.euronext.cloud\Reconciliation\101

A single private Folder per trading member firm ID, that can only be accessed by contacts linked to trading member, with CFTS access rights

Private member trade Golden File and Reconciliation Tool file (.zip, .csv)

Euronext Trading Member Firm ID e.g. 102, sftp.cfts.euatnr.euronext.cloud\Reconciliation\102

A single private Folder per trading member firm ID, that can only be accessed by contacts linked to trading member, with CFTS access rights

Private member trade Golden File and Reconciliation Tool file (.zip, .csv)

6.1 RECONCILATION DATA FILES PER ENVIRONMENT

Separate domain names will exist per environment.

The files available per environment, in a private folder, per trading member firm ID, are as follows:

RECONCILIATION DATA FILES PER ENVIRONMENT	DESCRIPTION
GF (Golden File) trade reconciliation	The file will contain all the trades that occurred in a day for a single member by Optiq segment. There will be one file per day, per member and per segment. Files are only generated in the event of Optiq trading platform incident.
RF (Reconciliation File) trade reconciliation tool	The file will contain all trades reported by the Reconciliation Tool in a single alert per trading member by Optiq segment. Multiple files maybe generated per day.
SLP\Euronext SLP Universe	This file lists all Euronext Supplementary Liquidity Providers (SLP) instruments by instrument code, Mnemonic and basket.

6.2 RECONCILIATION DATA SERVICE DIRECTORY

The reconciliation data service directory can be found under the folder /Reconciliation Data, on the internet CFTS SFTP domain.

6.3 RECONCILIATION DATA SERVICE FILE LIST

The table below lists the files that will be made available through CFTS SFTP Reconciliation Data Service for download.

OUTPUT SUB-FOLDER PATH	FILE NAMING CONVENTIONS
/<Firm ID>/	GF_<yyyy-MM-dd>-<Firm ID>.zip
/<Firm ID>/	RF_<yyyyMMdd>_<hhmmss>_<Firm ID>_<Optiq segment shortname>.ZIP
/SLP/	EURONEXT_SLPUNIVERSE-<yyyyMMdd >.csv

6.4 FILE SPECIFICATIONS

Individual Reconciliation Data Service file specifications are detailed the sections below.

6.4.1 Golden File (GF) Specification

The Euronext Golden File is a document listing all clients trades that were effectively sent by Euronext to Central Counterparty Clearing Houses at the time of its generation. It provides a complete overview of compensated operations at a given moment. This file is only created in the exceptional case where the functioning of the transaction integration chain at Euronext is altered.

Its format consists of a flat csv file, delimited by a semi-colon. For a given client, there will be as many files as Optiq segments. All trading member's csv files will be zipped into a single file for download. The file will be available through CFTS Reconciliation Data Service using SFTP with SSH key authentication.

The first line of the file contains the field names delimited by a semi-colon.

The second line of the file contains a header and detail dividing line with dashes.

- File Availability: Internal Euronext trading reconciliation incident.
- Scope of contents: All trades per member.
- Intraday updates: This file will be generated upon an internal Euronext trade reconciliation incident being raised.

File name will follow this template:
GF_<yyyy-MM-dd>-<Firm ID>.zip
Where <ENV> can take the following values: Production, Current EUA (vEUA), Next EUA (p-EUA).

Field	Short Description	Format	Len	Values	Presence
TRADE_DATE	Trade execution date (YYYYMMDD)	Date	12	20221017	Mandatory
TRADE_TIME	Trade execution date and time in microseconds	Unsigned integer 64	12	2022-10-17T08:07:46.707265Z	Mandatory
EXEC_ID	Trade execution identifier	Unsigned integer 32	10	12289	Mandatory
MNEMONIC	Instrument mnemonic code	String	5	ENX	Mandatory
ISIN	ISIN Code	String	30	NL0006294274	Mandatory
SYMBOL_INDEX	Exchange identification code of the instrument/contract.	Integer	10	1143559	Mandatory
SEGMENT	Optiq Segment short name. An Optiq segment is a universe of instruments sharing common trading properties.	String	3	EQU	Mandatory
AXX_TYPE	Account Type	String	8	CLIENT	Mandatory
CCP	Central counterparty clearing houses (CCPs) short name	String	11	LCH SA	Mandatory
*ORDER_ID	Numerical order identifier assigned by the Post Trade Box (where cleared operations are stored)	Numeric	8	4353	Mandatory
CLIENT_ORDER_ID	Client Order Id	Numeric	8	-1,16E+10	Mandatory
SIDE	Buy / Sell	String	1	B or S	Mandatory
PRICE	Price with decimal	Float	10	75.0	Mandatory
QTY	Quantity with decimal	Float	10	350	Mandatory
VALUE	PRICE multiplied by QTY	Float	10	236250.00	Mandatory
CURRENCY	Currency acronym	String	3	EUR	Mandatory
LAST_MARKET	Market identifier code	String	4	XPAR	Mandatory
TVTIC	Trading Venue Transaction Identification Code	String	52	513BMG455841020	Mandatory

* This identifier is not the Optiq Order_ID, however there is a formula to deduce this one from that Order_ID provided in the Golden File.

6.4.2 Reconciliation File (RF) Specification

The Euronext Reconciliation Tool File is a document listing all trades that were booked into Optiq but not sent by Euronext to Central Clearing Counterparty Houses at the time of its generation. It provides a full overview of all operations still pending (not fully integrated) within Optiq and not yet cleared. This file is only created in the exceptional case where the functioning of the transaction integration chain at Euronext is compromised.

Its format consist of a is flat csv file, delimited by a semi-colon. It provides a list of trades per member by Optiq segment. All trading member's csv files will be zipped into a single file for download. The file will be available through CFTS Reconciliation Data Service using SFTP with SSH key authentication.

The first line of the file contains the field names delimited by a semi-colon.

- File Availability: Internal Euronext trading reconciliation incident.
- Scope of contents: Trades booked by clients but not clearedper member.
- Intraday updates: This file will be generated upon an internal Euronext trade reconciliation incident being raised.

File name will follow this template:

RF_<yyyyMMdd>_<hhmmss>_<Firm ID>_<Optiq segment shortname>.ZIP

Where <ENV> can take the following values: Production, Current EUA (vEUA), Next EUA (p-EUA).

Field	Short Description	Format	Len	Values	Presence
Trade Date	Trade execution date (YYYYMMDD)	Date	12	20221017	Mandatory
Trade Time (UTC)	Trade execution date and time in microseconds	Unsigned integer 64	12	2022-10-17T08:07:46.707265Z	Mandatory
Exec ID	Trade execution identifier	Unsigned integer 32	10	12289	Mandatory
Mnemonic	Instrument mnemonic code	String	5	ENX	Mandatory
ISIN	ISIN Code	String	30	NL0006294274	Mandatory
Currency	ISO Currency Code	String	3	EUR	Mandatory
Last Market = MIC	Market Identification Code (ISO 10383 standard)	String	4	XPAR	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Integer	10	1143559	Mandatory
Optiq segment	Optiq Segment short name. An Optiq segment is a universe of instruments sharing common trading properties.	String	3	EQU	Mandatory
ACC_TYPE	Account T	String	8		Optional
CCP	Central counterparty clearing houses (CCPs) short name	String	11	LCH SA	Mandatory
Price	Price with decimal	Float	10	75.0	Mandatory
Quantity	Quantity with decimal	Float	10	350	Mandatory
Value	Price multiplied by Quantity	Float	10	236250.00	Mandatory
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM	Integer	8	16862000	Mandatory
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	signed integer 64	8		Optional

Field	Short Description	Format	Len	Values	Presence
Side	Indicates the side of the order. 1 = Buy, 2 = Sell, 3 = Cross	String	1	1	Mandatory
Logical Access ID	Trading member's logical access identifier	unsigned integer 32	10	101108	Mandatory
TVTIC	Trading Venue Transaction Identification Code	String	52	513BMG455841020	Mandatory

6.4.3 EURONEXT SLP Universe FILE

The Euronext SLP (Supplementary Liquidity Providers) File, is flat csv file, delimited by a semi-colon. It provides a list of instruments codes with their associated index. The file will be available through CFTS Reconciliation Data Service using SFTP with SSH key authentication.

The first line of the files contains the internal filename and application reference, date and time the file was created.

The second line of the file contains the field names delimited by a semi-colon.

The last line of the file contains the internal filename and application reference, date and time the file was created, and the number of data rows contained within the file.

- File Availability: Available 24/7.
- Scope of contents: All SLP instruments.
- Intraday updates: This file will be updated overnight.

File name will follow this template:
EURONEXT_SLPUNIVERSE-<yyyyMMdd >.csv

Field	Short Description	Format	Len	Values	Presence
InstrumentCode	Instrument code	String	12	FR0000130809	Mandatory
TradingCode	Trading instrument code	String	12	FR0000130809	Mandatory
Mnemonic	Instrument mnemonic code	String	5	GLE	Mandatory
Name	Instrument name	String	30	SOCIETE GENERALE	Mandatory
Basket	Basket identifier	String	1	A	Mandatory

7 CFTS EOD DATA SERVICE SUMMARY

Euronext CFTS EOD (End Of Day) Data service allows trading member firms to retrieve and download files, containing order and trade information belonging to its member firm code. Files are distributed by CFTS into private data folders per trading member firm ID. EOD files will be available for downloading on a daily basis.

Connectivity to the EOD Data Service can be made through the internet only (see section 3.1).
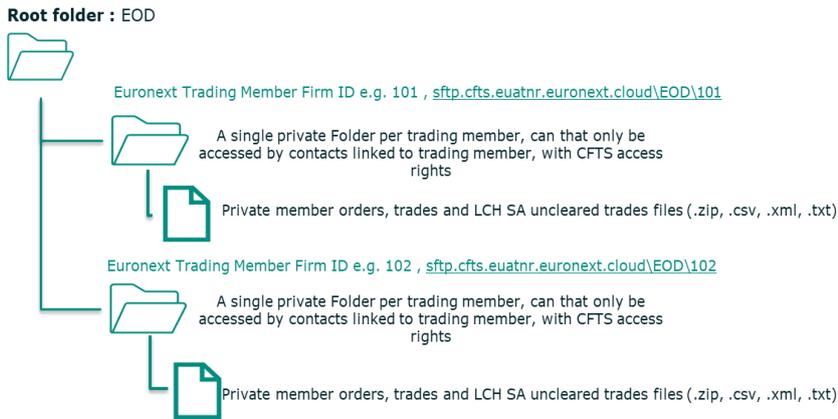
7.1 EOD DATA FILES PER ENVIRONMENT

Separate domain names will exist per environment.

The files available per environment, in a private folder, per trading member firm ID, are as follows:

EOD DATA FILES PER ENVIRONMENT	DESCRIPTION
FTRRM_<Firm ID>_<yyyyMMdd>.zip	Contains all trades, per trading member firm ID, executed during the last trading day in the Optiq Matching Engine in Optiq Cash segments
FORDCXML_<Firm ID>_<yyyyMMdd>.zip	Contains all orders, per trading member firm ID, remaining in the book for the next Trading Day for the Equities, Funds and Fixed Income Optiq segments.
FORDCWXML_<Firm ID>_<yyyyMMdd>.zip	Contains all orders, per trading member firm ID, remaining in the book for the next Trading Day for the Warrants & Certificates Optiq segment.
LCH_<Environment>_WCUTL_<Firm ID>_<yyyyMMdd>_<version no>.zip	Contains all uncleared OTC Warrants & Certificates trade Legs generated by LCH SA and sent to the settlement platforms, per trading member firm ID.
LCH_<Environment>_WCNET_<Firm ID>_<yyyyMMdd>_<version no>.zip	Contains all uncleared net instructions generated by LCH SA due to daily netting (record 00280) and regularizations (record 00281)
LCH_<Environment>_WCOBF_<Firm ID>_<yyyyMMdd>_<hhmmss>.zip	The aim of this file is to give each Trading Member Firm the detail of its Settlement Outbound, MT5xx messages sent by LCH SA which related to both records 00280 and 00281 of the NET file, per trading member firm ID.

7.2 EOD DATA SERVICE DIRECTORY

The EOD data service directory can be found under the folder /EOD, on the internet CFTS SFTP domain.

7.3 EOD DATA SERVICE FILE LIST

The table below lists the files that will be made available through CFTS SFTP EOD Data Service for download.

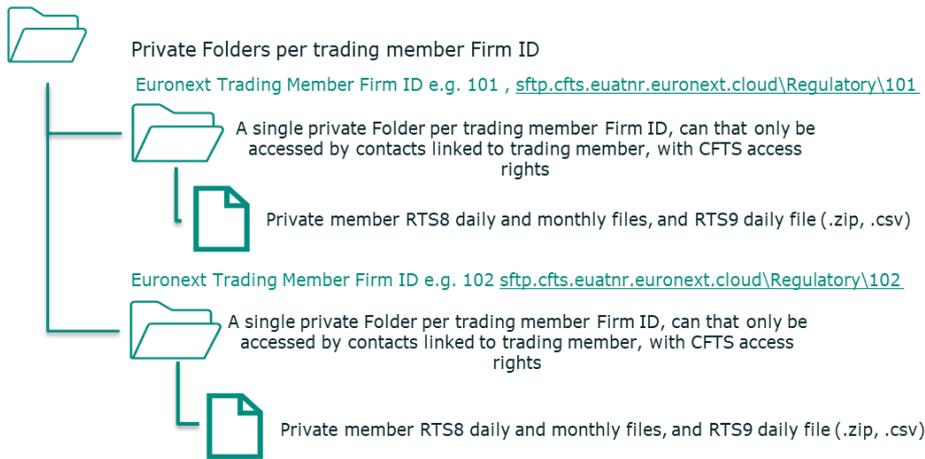| OUTPUT SUB-FOLDER PATH	FILE NAMING CONVENTIONS
/<Firm ID>/	FTRRM_<Firm ID>_<Date YYYYMMDD>.zip
/<Firm ID>/	FORDCXML_<Firm ID>_<Date YYYYMMDD>.zip
/<Firm ID>/	FORDCWXML_<Firm ID>_<Date YYYYMMDD>.zip
/<Firm ID>/	LCH_<LCH SA Environment>_WCUTL_<Firm ID>_<Date YYYYMMDD>_<version no>.zip
/<Firm ID>/	LCH_<LCH SA Environment>_WCNET_<Firm ID>_<Date YYYYMMDD>_<version no>.zip
/<Firm ID>/	LCH_<LCH SA Environment>_WCOBF_<Firm ID>_<yyyyMMdd>_<hhmmss>.zip

7.4 FILE SPECIFICATIONS

For all details of individual file specifications please reference the latest version of the Euronext Cash Markets - End Of Day Files - Interface Specification - External on the Euronext Connect Customer Portal.

8   CFTS REGULATORY DATA SERVICE SUMMARY

Euronext CFTS Regulatory Data service allows trading member firms to retrieve and download files, containing, daily and monthly RTS8 Market Making Performance Report and daily RTS9 Order to Trade (OTR) Ratio reports, belonging to its member firm code. The reports are distributed by CFTS into private data folders per trading member firm ID. Regulatory report files will be available for downloading on a daily basis.

Connectivity to the Regulatory Data Service can be made through the internet only (see section 3.1).

Root Folder: Regulatory

Private Folders per trading member Firm ID

Euronext Trading Member Firm ID e.g. 101 , sftp.cfts.euatnr.euronext.cloud\Regulatory\101

A single private Folder per trading member Firm ID, can that only be accessed by contacts linked to trading member, with CFTS access rights

Private member RTS8 daily and monthly files, and RTS9 daily file (.zip, .csv)

Euronext Trading Member Firm ID e.g. 102 sftp.cfts.euatnr.euronext.cloud\Regulatory\102

A single private Folder per trading member Firm ID, can that only be accessed by contacts linked to trading member, with CFTS access rights

Private member RTS8 daily and monthly files, and RTS9 daily file (.zip, .csv)

8.1   REGULATORY DATA FILES PER ENVIRONMENT

Separate domain names will exist per environment.

The files available per environment, in a private folder, per trading member firm ID, are as follows:

REGULATORY DATA FILES PER ENVIRONMENT	DESCRIPTION
MMSTATS_<MIC Code>_DAILY_<Firm ID>_<yyyyMMdd>.csv	RTS8 detailed daily performance report are produced per operating MIC (XMIL for Borsa Italiana markets) and member, and recorded in separated files, each with fixed-length format.
MMSTATS_<MIC Code>_MONTHLY_<Firm ID>_<yyyyMMdd>.csv	RTS8 detailed monthly performance report are produced per operating MIC (XMIL for Borsa Italiana markets) and member, and recorded in separated files, each with fixed-length format.
OTRSTATS_<MIC Code>_DAILY_<Firm ID>_<yyyyMMdd>.csv	RTS9 detailed daily report per member and market, containing a line each time a member triggers an 'OTR breach' or an 'OTR warning' on an instrument.

8.2 REGULATORY DATA SERVICE DIRECTORY

The Regulatory data service directory can be found under the folder /Regulatory, on the internet CFTS SFTP domain.

8.3 REGULATORY DATA SERVICE FILE LIST

The table below lists the files that will be made available through CFTS SFTP Regulatory Data Service for download.

OUTPUT SUB-FOLDER PATH	FILE NAMING CONVENTIONS
/<Firm ID>/	MMSTATS_<MIC Code>_DAILY_<Firm ID>_<yyyyMMdd>.csv
/<Firm ID>/	MMSTATS_<MIC Code>_MONTHLY_<Firm ID>_<yyyyMMdd>.csv
/<Firm ID>/	OTRSTATS_<MIC Code>_DAILY_<Firm ID>_<yyyyMMdd>.csv

8.4 FILE SPECIFICATIONS

For all details of individual file specifications please reference the latest version of the Euronext Cash Markets – Regulatory Reporting RTS8 File - Interface Specification - External and Euronext Cash Markets – Regulatory Reporting RTS9 File – Interface Specification – External, on the Euronext Connect Customer Portal.

APPENDIX

A.1 REFERENTIAL DATA SERVICE OPTIQ SEGMENT FOLDER LIST

The below table represents the list of available CFTS Optiq segment folders available at the time of publication.

OPTIQ SEGMENT
BDL (Bourse de Luxembourg)
Commodities (Commodity Derivatives)
Equities
Equity Derivatives
Block (Euronext Block)
Fixed Income
Forex
Funds
Index Derivatives
Indices
Irish Bonds & Funds
Trade Reporting and Publication
Warrants and Certificates

A.2 DOCUMENT HISTORY TABLE

REVISION NO	DATE	AUTHOR	CHANGE DESCRIPTION
5.17.0	1 Aug 2022	IT Market Services – COL - WMA	Creation of the document.
5.18.0	15 Sep 2022	IT Market Services – COL	Update to CFTS SPTF Domain names, diagrams and SSH Key generation screen shots. Distribution of file, SBETemplate_ALL, no longer valid. Include CFTS Referential data sub-folder and filenames combined table provided. Financial Derivatives Optiq segment discontinued.
5.19.0	07 Oct 2022	IT Market Services – COL	Included Reconciliation and Corporate Action ETFs services
5.20.0	28 Oct 2022	IT Market Services – COL	Included CFTS EOD (End Of Day) Data service, section 7
5.20.1	6 Dec 2022	IT Market Services – COL	Correction to CFTS internet SFTP domain, sftp.cfts.prodnr.euronext.cloud. Populated production domain name IP addresses
5.21.0	16 Dec 2022	IT Market Services – COL	The following changes have been made to this version of the document: ■ In CFTS Service Domain names: IP Address and Domain Name updated
5.21.1	16 Dec 2022	IT Market Services – COL	Section 5.4 Correction to AuthorizedPriceFluctuationFile filename prefix changed to OptiqMDG_<ENV>_AuthorizedPriceFluctuationFile
5.21.2	13 Jan 2023	IT Market Services - COL	Inclusion of MyEuronext CFTS web based application access and section 8 Regulatory Data Service
5.23.0	7 Mar 2023	IT Market Services – COL	Inclusion of LP_OBLIGATIONS file in the Referential Data Service, Current, folder