Euronext Connectivity Services

EURONEXT SECURITIES

Connectivity options

Different solutions to meet every client's needs

Euronext provides today a wide range of **Application Services** through its network.

Each of those services can be accessed:

Through a **direct connection** to the Euronext network

Through an **indirect connection** via an external service provider authorised by Euronext

In the near future, ***Euronext Post-Trading Services will also be onboarded onto the Euronext network.***

This means ***that clients already directly or indirectly connected to Euronext*** *for trading, market data or clearing services,* ***will be able to use the same infrastructure for post-trading services***

APPLICATION SERVICES

- Order Entry services to Optiq Matching Engine or to MTS

- Euronext or MTS Market Data

- Deal capture & risk management (e.g. drop copy, RiskGuard)

- Euronext Clearing services

- **Euronext Post-Trading Services**
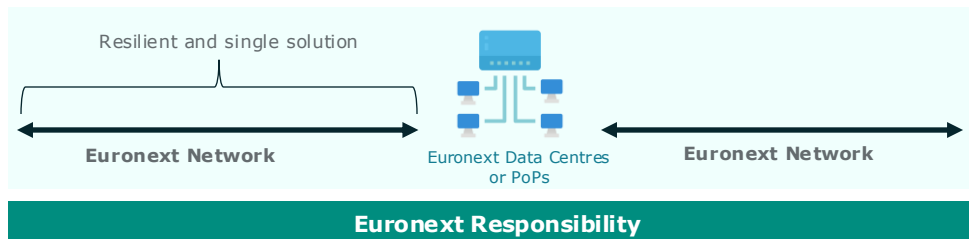
EURONEXT SECURITIES

Direct connectivity options

Euronext Managed Connectivity *(EMC)*

End-to-end Euronext Managed Connectivity from client's premises to Euronext Data centres

Client

Resilient and single solution

Euronext Network

Euronext Data Centres or PoPs

Euronext Network

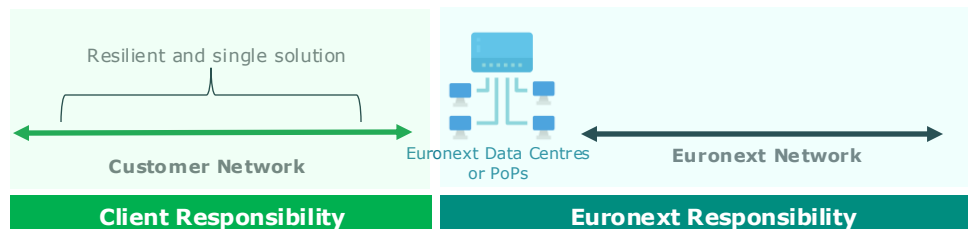Euronext Application Services

Euronext Responsibility

Client Managed Connectivity *(CMC)*

Client is responsible for the connection from its premises to Euronext Data Centres or Points of Presence (PoPs)

Client

Resilient and single solution

Customer Network

Euronext Data Centres or PoPs

Euronext Network

Euronext Application Services

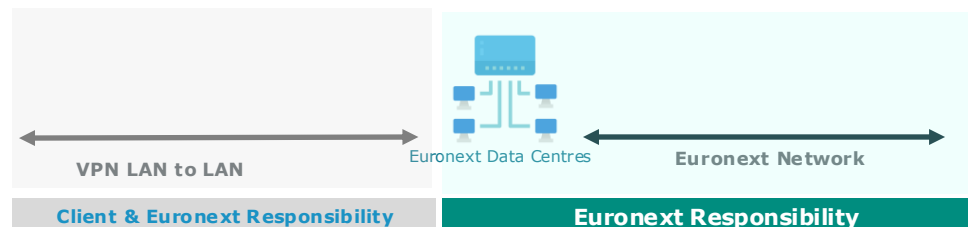**Client Responsibility**

Euronext Responsibility

Connectivity to Test Environment (VPN)

Connectivity to the IBM MQ UAT (TEST) environment will be available also using a site-to-site VPN (IPsec LAN-to-LAN) over the Internet.
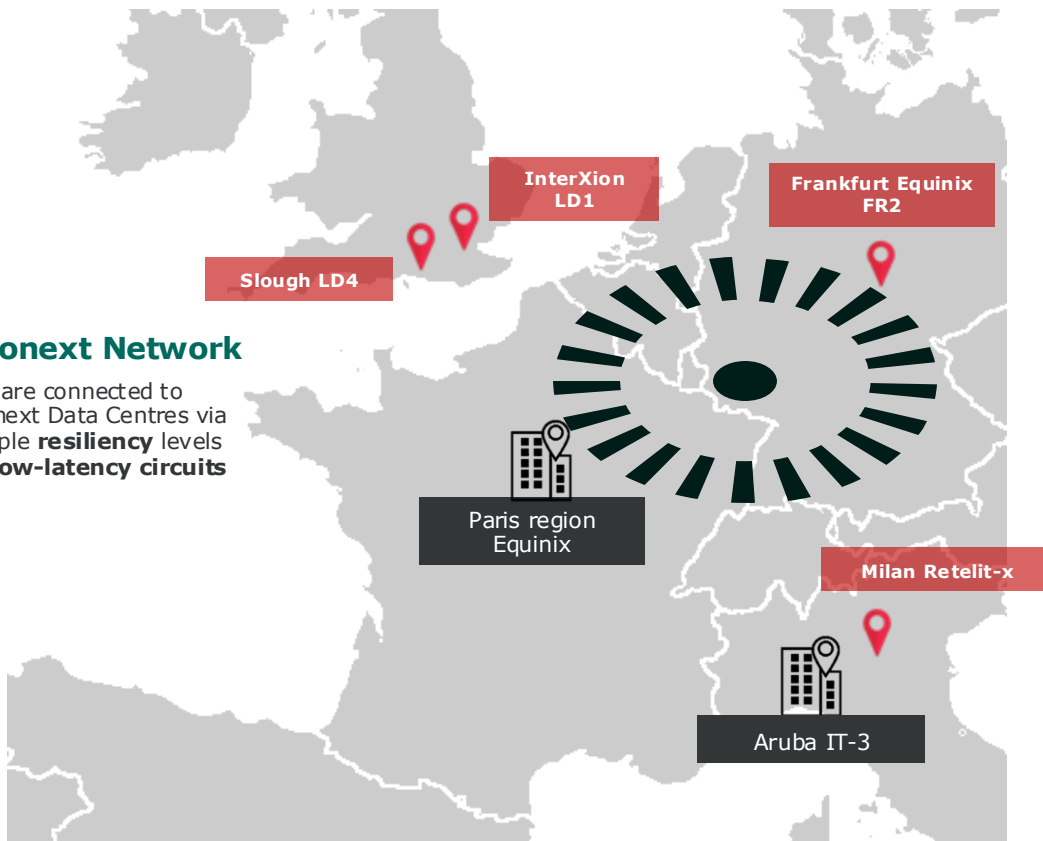
Client

VPN LAN to LAN

Euronext Data Centres

Euronext Network

Euronext Application Services

Client & Euronext Responsibility

Euronext Responsibility

PRIVATE

Euronext data centres and network

Euronext Network

PoPs are connected to Euronext Data Centres via multiple **resiliency** levels and **low-latency circuits**

InterXion LD1

Slough LD4

Frankfurt Equinix FR2

Paris region Equinix

Milan Retelit-x

Aruba IT-3

Euronext Data Centre

Euronext Point of Presence

EMC Connectivity Model

- **Connection is realised through circuits and devices** provided by Euronext
- Available in **Euronext Data Centres** and **Points of Presences (PoPs)**
- Access to **Production, DR and test environments**
- **24x7 fully monitored and managed service**
- Bandwidth options: 2 Mbps, 10 Mbps, 100 Mbps, 1 Gbps and 10 Gbps

CMC Connectivity Model

- **Connection is realised through access ports** on Euronext devices where the clients deliver their own circuits
- Available in **Euronext Data Centres** and **Points of Presences (PoPs)**
- Access to **Production, DR and test environments**
- Bandwidth options: 10 Mbps, 100 Mbps, 1 Gbps and 10 Gbps

VPN LAN to LAN

- Available in **Euronext Data Centres** with access to **test environment only**

Direct connectivity: pricing model

Connectivity pricing is based on 2 main components

1. Infrastructure

$+$

2. Products

$=$

Connectivity Service

Access port in CMC
Circuit and devices in EMC

Products configured on the infrastructure (**Application Services Fees ASF**):

- ✓ Trading Services
- ✓ *Market Data (cash and derivatives for each Euronext market)*
- ✓ ***Post Trading Services***

CMC services

EMC services

In this model, **clients that are already connected to Euronext for other services can rely on the same connectivity for post-trading services** as well

Only additional fee is the Application Service Fee

Direct connectivity: how to order

CLIENTS ALREADY CONNECTED TO EURONEXT NETWORK (CMC or EMC)

Clients should **contact the Client Connectivity Team** at connectivity.support@euronext.com and arrange to sign a **Euronext Change Request document** to add post-trading services to their existing connectivity

NEW CLIENTS (not already connected to Euronext network)

Clients wishing to order new direct connectivity to Euronext must **sign a Connectivity Agreement with Euronext**.

The Connectivity Agreement is made up of the:

- Euronext Connectivity Order form*
- Euronext Connectivity Services - Specific Terms*
- Euronext Data Centre Services – General Terms and Conditions
- Service and Technical Descriptions*

- The above **documentation is available on the Euronext Connect Portal**, with the exception of the Service and Technical Description documents which is sent upon request only

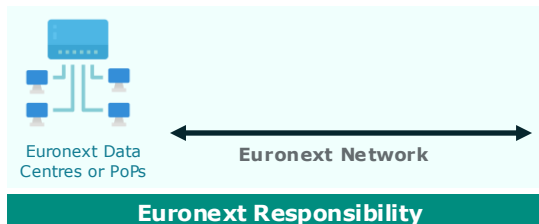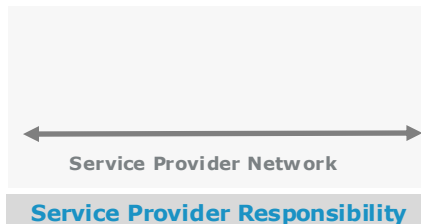* Different versions for CMC/EMC

Indirect connectivity and how to order

Connection via Service Provider

The authorised Euronext Service Provider is responsible for the client's connection to Euronext

Client

Service Provider Network

Service Provider Responsibility

Euronext Data Centres or PoPs

Euronext Network

Euronext Responsibility

Euronext Application Services

As an alternative to the Euronext Connectivity services, clients can rely on authorised Euronext Service Providers.

Clients wishing to explore this option should **contact their preferred service provider and sign a connectivity agreement with them**, or ask them to add post-trading access to their existing connectivity.

The **list of service providers** already authorised for Euronext Trading Services is available on the **Euronext website**.

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