

DATA VENDORS' CONNECTIVITY GUIDE



Data Feed
Services

Table of Contents

1. Introduction	3
2. Direct Connectivity	4
2.1. Data Feed transmission and Interaction protocol	5
2.2. Data Feed content (market Data Feed Specification)	5
2.3. Resources	5
2.4. Contact details	6

1. Introduction

A Data vendor should take the following steps in order to connect to OASIS and receive the Marker Data information in real time (Market Data Feed):

1. Setup of technical connectivity to HELEX Data Centers
2. Implement the interaction protocol and connection accounts that will enable the Data Vendor to control the connection
3. Implement the Data Feed Specification, in order to be able to read the content of the Market Data Feed.

2. Direct Connectivity

The ATHEX offers to Data Vendors several connectivity alternatives:

- Leased lines
- Internet (recommended for testing & backup purposes)
- International Extranets

The recommendation is to establish a 2Mbps connection, with a minimum requirement of 512Kbps. The Data Vendor may use local or international Telco carriers in order to acquire leased lines or internet access.

The detailed specifications for the connectivity & networking solutions can be found in the document: [Network connectivity Specification v1.1.doc](#)

Connectivity can be achieved to the following ATHEX data centers:

- Main Data Center
- Disaster Recovery Site (it also offers access to Main Data Center)
- London HUB (Point of Presence in Telecity, offering fully managed & redundant access to both Main and Disaster sites)

The ATHEX Data Feed infrastructure consists from 2 production and 3 test/development servers, called IOCP Servers:

Full Name	Short name	IP Address
FIC-IOCP Primary production server	IOCP-primary	XXX.XXX.XX.71
FIC-IOCP Secondary production server	IOCP-secondary	XXX.XXX.XX.72
FIC-IOCP Test server	Test primary IOCP	XXX.XXX.XX.70
FIC-IOCP Development server	Development IOCP (D-IOCP)	XXX.XXX.XX.73
FIC-IOCP New Specifications Development server	Development IOCP (S-IOCP)	XXX.XXX.XX.163

ATHEX offers two production servers for redundancy purposes. To fully exploit the redundancy scheme it is recommended the Data Vendor uses two servers to connect to both ATHEX production servers.

The 'Test server' offers production feed. This enables the Data Vendor to perform testing of its own systems, on a realistic test environment.

The 'Development server' offers access to the Market Members' Development Environment to support development of systems that integrate order management and pricing data flows. Also it can be used for testing pre-production attributes (for example new Markets/Venues).

The 'New Specifications Development server' is equivalent the 'Development server' for ATHEX specifications that are in pre-production mode («OASIS – Shadow» environment).

2.1. Data Feed transmission and Interaction protocol

The Data Feed is transmitted through a TCP/IP environment, in a 'push' technology data feed. This means that the market updates are transmitted the very moment they occur (real time) in messages with a specific format (Data Feed specification).

In order to be able to access and control the connection to IOCP servers the Data Vendor has to implement the '[OASIS IDS Interface Technical Specification-IOCP v 4.0.0.0](#)'. This will enable Data Vendor to perform the following tasks:

- Connect or disconnect to IOCP Servers
- Authenticate itself
- Check the status of its connections
- Commence or stop the transmission of data feed
- Commence or stop the retransmission of data feed in case data is lost and should be recovered (re-transmitted).

As explained in the above mentioned specification document, the ATHEX will open several 'connection accounts' on IOCP servers to enable the Data Vendor manage the connection process (session layer). The required username and password (credentials) are issued by ATHEX in order to accomplish the authentication process.

Each connection account specifies the ATHEX IOCP server and the content it will transmit (Securities, Derivatives, etc).

The number and details of the connection accounts is agreed between the Vendor and ATHEX, pertaining redundancy reasons and Data Vendor needs.

2.2. Data Feed content (market Data Feed Specification)

The information is transmitted in data feed 'messages' that carry the updates of the market activity (application layer). The Data Vendor in order to be able to read the 'messages' should implement the '[OASIS IDS Market Data Feed Specification v4.0.0.1](#)'.

The Data Feed offers detailed information for all Market Venues operated by ATHEX, including:

- A. Reference Data
- B. Trades (post trade transparency)
- C. Orders (pre trade transparency), in both a) per order details (Full Order) and b) aggregated price levels (BBO).
- D. Index & iNAV values
- E. Market and Instrument status changes
- F. Market Model Typology information (MMT trading flags) according to FESE recommendation
- G. Day's aggregated volumes and closing prices

2.3. Resources

Please see the following resources for more detailed information:

- New Specification documents:
 - <http://www.helex.gr/documents/10180/1238919/OASIS+IDS+Market+Data+Feed+Specification+v4.0.0.1.pdf/f1ea91bd-a176-4dff-bfeb-1d3872027ab8>
 - <http://www.helex.gr/documents/10180/1238919/OASIS+IDS+Interface+Technical+Specification+IOCP+v4.0.0.0.pdf/96f2d058-a114-4cf2-b4df-7a1496427f59>
- Market schedule (Market timing and trading methods):
 - Production environment: <http://www.helex.gr/web/guest/securities-market-schedule;jsessionid=1431066A33ABD420C347AB56C7616192>
 - Test environment: http://www.helex.gr/documents/10180/1238933/TEST+-+ATHEX+Markets+Schedule_05062013C_v1+0.pdf/fcf8ccb5-e539-4cd1-b8ef-f155cc8ed2f8
 - Shadow environment:
http://www.helex.gr/documents/10180/1493439/OASIS+Mock+Guide+Version+4_0+V+1.0.pdf/4ad4dec8-09d0-4fa2-9096-b5f9bfc8d013 (chapter 2.1.1)
- Data Feed policies: <http://www.helex.gr/web/guest/vendors-area>
- For current Specification documents please contact the Data Feed Service team (see 2.4)

2.4. Contact details

The Data Feed Services team (DFS) will guide and support during onboarding and operation. Please use the following contact details to reach us:

ATHEX Data Feed Services

Information Services Department
Market Operation & Members Support Division
Tel.: (+30) 210 336 6340
E-mail: dfs@helex.gr