Summary of ATHEX's key emergency procedures and protocols applicable in case of a technical issue in OASIS trading system

ATHEX Emergency Playbooks

ATHEX Group



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1. Definitions, Acronyms and Abbreviations

The table below shows all the abbreviations and definitions used in this document.

Acronym	Definitions
ATHEX	Athens Exchange
ESMA	European Securities and Markets Authority
MiFID	Markets in Financial Instruments Directive
OASIS	Integrated Automated Trading System
Members	Entities admitted to operate on ATHEX markets
Data Vendors	ATHEX Market Data licensees
ISV	Independent Software Vendor
IOCP	Internet Oriented Communication Portal
IT	Information Technology
RDS	Reference Data Service

2. Document Scope

Technical outages experienced by European Stock Exchanges can be described as one of the most highly disruptive and inevitable points of failure that imperil the resilience and stability of the European Equity Market. Outages affect trading in all asset classes and can have detrimental consequences in Exchanges. As part of its mission, ATHEX continuously improves its technology and procedures with the goal to offer a robust infrastructure and, if necessary, the best incident handling possible.

This document provides an overview of how ATHEX deals with a technical incident of OASIS trading system that potentially requires a series of emergency procedures to take place. It also describes how ATHEX will communicate in such cases, how trading will be resumed.

Please note that the following emergency procedures are subject to a continuous improvement process and adapted to findings, new guidelines or technological progress.

3. Introduction

MiFID II, and in particular Articles 47 and 48, sets out the framework defining the basic requirements for trading venues to ensure the resilience of systems and orderly trading. ATHEX complies with these requirements and ensures a high availability of OASIS for the ATHEX Trading members and the Exchanges that participate in Common Platform.

In the event of a technical incident, ATHEX has implemented processes and communication guidelines with all the stakeholders involved to minimize the impact of an incident and to resolve the problem as



soon as possible. Timely communication towards the market participants, Exchanges of Common Platform and market data providers is a key point in this process.

4. Incident Communication

ATHEX has established a swift and transparent incident communication policy towards the market participants, which includes the publication of standardized and precise initial announcements in Greek and English using multiple communication channels (e.g. ATHEXGroup website, email, SMS) with regular updates, until the final resolution of the issue. Moreover, ATHEX, in accordance with the legal notification obligations as per Art. 54.2 MiFID II, ensures efficient incident notification to the responsible competent authority (HCMC).

The emergency notification includes the following information:

- Subject: it starts with [ATHEX URGENT] Technical Issue Notification
- Systems:
 - ATHEX FIX Service
 - ORAMA client
 - XNET Trader client
 - Data Feed Service
 - o RDS Files
- Problem short description
- If available: expected resolution time
- If solved and if needed: participant's recovery actions

Finally, for the internal communication, ATHEX has established an emergency communication procedure, which steers the information flow between all relevant internal parties including the Trading System operation, the development and the technical teams involved in the analysis of the technical incident and its resolution. With this approach, the emergency information is distributed in a consolidated manner to the whole ATHEXGroup, providing swift and regular information to other departments which support trading participants. This also includes a direct feedback loop to the teams that try to resolve the technical incident with additional relevant input to include consolidated customer inquiries and customer status.

4.1 ATHEXGroup Status Service

The ATHEXGroup Status Service allows Market participants to receive notifications regarding technical issues related to the Athens Stock Exchange trading systems.

More specifically, Market participants can get updates regarding the status of OASIS Trading System using the ATHEXGroup website https://status.athexgroup.gr/ or singing up on the preferred communication channel:

- Slack
- Microsoft Teams



- RSS
- Atom
- API

5. Operational Procedures

ATHEX is committed to providing the best possible service and as such, prepared to react swiftly and efficiently in case of a technical emergency. Moreover, is always open to improvements and possible adaptations of its policies, in line with technological improvements. Thus, ATHEX has standardized operational procedures in case of a technical issue to ensure orderly trading, which includes decisions on market or system halts, and/or cancellation of trades or orders. ATHEX also provides pre-defined opening procedures after a technical malfunction and has developed backup plans for the closing price determination procedures.

Therefore, according to the internal procedures of Athens Exchange, there is a list of actions that ATHEX might take during a technical issue:

- 1. Market Operation team detects the technical emergency issue (if the issue is discovered from another department of ATHEX, this department informs the Market Operation team of ATHEX)
- 2. Market Operation team immediately communicates with Network and/or Development team.
- 3. An immediate root cause investigation and resolution is initiated. Simultaneously, an initial notification is distributed to the Exchanges of Common Platform, the ATHEX Surveillance dpt and the ATHEX Support team which informs the Market participants that the Trading system is experiencing technical issues.
- 4. During the root cause investigation and issue resolution by Network and/or Development team, Market Operation team regularly gives updates to the Support team, in order to keep Market participants informed.
- 5. Depending on the affected time (Before Open, After Open/Before Close or During Trading) and the nature of the malfunction, the following actions can take place:
 - a. Halt or Stop the OASIS Trading system, or
 - b. Suspend the market or the instruments of a specific Market
- 6. As soon as the incident is resolved and the Trading system and its subsystems are available again, Market participants and Exchanges that participate in Trading System are informed.
- 7. In case the technical incident has caused a halt of trading (for specific products, a specific market or the Trading system), a trading resumption schedule will be prepared and published as notification to the Market participants. Simultaneously, Exchanges that participate in Trading System are notified that the technical issue is fixed in order to schedule a recovery Opening auction at least 30 min before the Trading system resume. Moreover, depending on the affected time and the nature of the malfunction, the following actions can take place:
 - a. Clear down order book, or
 - b. Delete executed trades
- 8. During the technical issue, and depending the malfunction, the ATHEX relevant dpt may submit preagreed trades on OASIS, on behalf of ATHEX members that face a **fail trade**.



9. Following end of the recovery Opening auction, the predefined daily schedule follows.

6. Business Continuity

ATHEX, having as its main obligation the safeguard of smooth trading, clearing and settlement procedures, has been engaged in the implementation of a Business Continuity Plan (BCP). Part of this plan is the establishment and entry into service of a Disaster Recovery Site of ATHEXGroup which is able to support the safe and smooth continuity of critical business activities of the Group, in case of a destructive event at the main premises of ATHEXGroup, or events that could cause prolonged interruption of normal business operation.

ATHEX, since 2013, has successfully completed the certification according to the international standard ISO22301:2012 of the Business Continuity Management System. ATHEX organizes test of its Business Continuity Plan on annual basis, with the participation of all the markets participants.

7. Contact Information

Members Support & Network Management Unit

T +30 210 3366385 - 393
E members-Support@athexgroup.gr
Service Desk | Members-Support/servicedesk

Communication & Market Analysis Unit

T +30 210 3366000

E <u>DFS@athexgroup.gr</u>

Service Desk | DataVendors/servicedesk

8. Related Documents

All the relevant documents can be downloaded on the ATHEXGroup official webpage:

- ATHEX Rulebook
- ATHEX BoD Resolution (Resolution 22 for trading parameters of ATHEX markets & products)
- Schedule of trading hours