MTS OUTAGE PLAN

JUNE 2024

VERSION CONTROL				
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1 OUTAGE PLAN





1.1 Introduction

On 29th September 2021, the European Securities and Markets Authority (ESMA) published its MiFID II/MiFIR report on algorithmic trading. In this report, ESMA provides guidance to trading venues on what is expected from them in case of market outages and calls for a coordinated effort between the industry and regulators to limit the impact of an outage and secure the continuity of trading when there is an outage on the primary market.

ESMA subsequently published, on 24th May 2023, an Opinion on market outages. The Opinion sets out ESMA's expectations on how trading venues should communicate with market participants in case of an outage.

1.2 Purpose and Scope

This document ("Outage Plan") outlines MTS's outage response procedures for MTS S.p.A and its subsidiaries EuroMTS and MTS France, regarding the following trading platforms:

- MTS Cash
- MTS Repo
- MTS Depo
- BondVision
- MTS PAF

This document is reviewed and updated at least every two years or sooner in case MTS deem it necessary. Furthermore, this Outage Plan and MTS's disaster recovery procedures are tested on a yearly basis.

1.3 Outage Management at MTS

The Outage Plan shall be deployed in the event that MTS identifies an outage. In exceptional circumstances, MTS may need to change its outage plan at the time of a disruption in order to better address the current outage.

1.3.1 Strategy

The complexity of interactions between components of hardware, software and processes means that it is not feasible to set out every permutation of outage causes. However, we can consider two major factors:

- > Time of day: different approaches are needed depending on when the outage occurs, i.e. outside Market hours or during Market hours.
- > Nature of the failure: different approaches might be needed depending on the type of failure occured, i.e. Hardware, Software and connectivity.

MTS' overall outage management strategy can be divided into three main phases:



Phase 1: Alerting

When a potential disruption occurs, MTS assesses its severity according to predefined criteria and if an outage is called the Incident Management Procedure is launched. This requires all relevant MTS functions to join a dedicated call to discuss first findings and assess the impact of the incident.

Phase 2: Response & Restoration

This phase starts immediately after an outage is called and a deeper assessment performed, it also includes the following steps:

- 1. Assessment of impacted trading platforms, services, partners and clients;
- 2. Definition of priorities;
- 3. Launch of communication process to external stakeholders such as Market Participants, Vendors, Authorities;
- 4. Synthesis of an immediate recommendation regarding the alteration of the market state and regular reassessment if new information becomes available;
- 5. Identification, validation and implementation of possible workarounds;
- 6. If deemed necessary, triggering of Disaster Recovery procedures;
- 7. Identification and implementation of technical recovery solution(s);
- 8. Identification of root cause and application of permanent fixes.

Phase 3: Post Incident

Once the outage has been resolved, MTS will provide a status update to all relevant stakeholders, a detailed Incident Report will also be made available.

1.3.2 Scenarios

Scenario #1: Market Outage during Market hours

Should an outage occur during Market hours, MTS's priority will be to restart trading. Here below are the three phases expected and related actions:

- 1. Securing the trading platforms;
 - I. Automatic quote suspension;
 - II. Market suspension (managed by the MTS Market governance team).
- 2. Troubleshooting;
 - I. Identification;
 - II. Collection of evidence;
 - III. Identification of solution.
- 3. Restoration of service.
 - I. Release of identified solution in Production;
 - II. Market re-activation (managed by the MTS Market governance team);
 - III. Monitoring of actual effectiveness of solution.



Scenario #2: Market Outage outside Market hours

With the Markets closed, this scenario does not envisage trading operations to be secured. Here below are the two phases expected and related actions:

- 1. Troubleshooting;
 - I. Identification;
 - II. Collection of evidence;
 - III. Identification of solution.
- 2. Restoration of service.
 - I. Release of identified solution in Production;
 - II. Market re-activation (managed by the MTS Market governance team);
 - III. Monitoring of actual effectiveness of solution.

1.4 Areas of focus during outages

Despite having implemented a number of measures that aim to prevent MTS trading platforms from suffering a degradation of the services provided, the Company may still suffer event that could affect our Markets.

In such scenarios, MTS priorities are:

- 1. Keep markets open as long as they are operating in a fair and orderly manner;
- 2. Restore the service as quickly and safely as possible, whilst fulfilling our regulatory responsibilities. This includes securing the consistency between order and trade records at all times and minimising impact on trades (RTS7);
- 3. Communicate appropriately and in a timely manner to internal and external stakeholders:
- 4. Prepare a secured end-of-day closing on the day of an incident;
- 5. Carry out a post-event review and take actions to avoid the recurrence of an outage.

1.4.1 Communication

MTS endevour to notify all relevant stakeholders in case of a degradation of the services provided and any subsequent update in a timely manner and via the following means:

- Emails from <MTS Markets> mts.noreply@euronext.com
- MTS corporate webpage: Market Status and Trading Halts

MTS will send regular updates via email every hour or sooner in case of material significant updates. The webpage will be updated accordingly.

The communications sent shall include, if available, the following information:

- The nature of the event;
- The extent of the event with the services impacted;
- A possible resumption time.

MTS endevour to provide the above listed information in the first available update or as soon as such information is available.



Here an example of a communication from MTS in case of disruptions of any of its services.



Dear Participant,

Following a failure of the Internet Proxy at 10:00 UTC, a number of Participants are experiencing issues when attempting to re-connect to the BV, CMF and MMF markets.

Market	Service Impacted	Outage Description	ETA
Cash Market facility	Internet	Users are unable to login	11:00 UTC
MMF Repo & Depo	Internet	Users are unable to login	11:00 UTC
BondVision	Internet	Users are unable to login	11:00 UTC

The markets remain open, and all Participants who are still connected via the Leased line (CMC) may continue to trade. Investigations are ongoing and further updates will be provided in due course.

The MTS Outage Plan can be found at the following link.

Kind regards,

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1.4.2 Restoration of service

Following the outage analysis process during which the most appropriate solution to be implemented has been defined, implementation timing included, MTS Technology will deliver or schedule the change required to solve the outage on the impacted service(s). The identified solution will be firstly tested in a segregated environment different from Production when possible.

Once the change has been released in Production, MTS Technology, MTS Product development and MTS Operations functions will run further checks to confirm its actual effectiveness.

1.4.3 End-of-Day processing

The correct execution of the following End-of-Day processes will be verified and run manually if needed:

- Database backup;
- Trading Platform(s) clean-up;
- Anagrafica updates performed during the day sent to Trading Platform(s) and PSE.



1.4.4 Orders and Trades Management

Orders

As a protection measure, all quotes active on the impacted MTS Market(s) prior to an outage will be automatically suspended.

Once participants can reconnect to the market they will, depending on the resolution of the incident, either:

- automatically receive the status of their orders (which will be in suspended status following the resumption of trading);
- all orders will be removed from the order book.

Trades

Executed trades will remain stored in the trading database and Members will have full visibility on them upon service restoration.

