SEMOpx Info – 02 September 2022

New M7 6.13 Release & New additional "XSIM" Simulation Environment

Important information – Action required

- **M7 6.13 Go-live scheduled for mid of September**
- **New ComTrader 6.13 version mandatory** as of go-live
- **Advanced Simulation deployment mid of August**
- **M7 6.13 API changes**:
  - Private Response Queue new mandatory naming convention
  - Load Management Throttling Status Request applicative limit
  - Requests expiration time property default value
- **New XSIM environment** available as of now – environment details attached

Dear SEMOpx Member,

We are pleased to inform you about the upcoming M7 6.13 release, which will increase performance as well as stability and includes some API changes.

The go-live date is scheduled for 13th September, subject to successful testing. This release also includes a new mandatory ComTrader version 6.13 which will be available prior to go-live and will be announced separately.

Beside the new M7 6.13 Release we glad to announce an additional M7 Simulation Environment called "XSIM" (eXisting Simulation Environment) which will improve the testing experience for members as it guarantees production like testing environment even if a new release is deployed in ASIM (Advanced Simulation Environment).

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1. M7 6.13 API changes

Please find below preliminary information about the M7 6.13 API changes. The updated M7 API package including a list of bug fixes and the whole set of DFS docs will be provided the next communication.

1.1 Private Response Queue: new mandatory naming convention (postponed from 6.12)

As already announced in 6.12 communications, the following naming convention becomes **mandatory,** to be able to create a private response queue as of M7 6.13:

- m7.private.responseQueue.<login-id>.queueX (X from 1 to 10)

Queues creation attempts with a different naming will be rejected.
Please refer to the DFS180 *3.1.3 How to send requests* section for more details.

1.2 Load Management Throttling Status Request applicative limit

M7 6.12 introduced a new Throttling Status Request message enabling to collect Load Management information (status, OMT count), but without any rate limit enforced by M7.

It is only allowed to send this request not more frequently than every 3 seconds.

M7 6.13 implements a limit in a very similar way to other inquiry requests:

- The authorised limit is featured in the *System Info Response* message:
  - `<RequestLimit message="ThrottlingStatusReq" duration="3" rate="1"/>`
- When a Throttling Status Request is sent by a user sooner than 3 seconds after the previous one, the following error message is sent to your private response queue:
  - `<ErrResp xmlns="http://www.deutsche-boerse.com/m7/v6">`
    - `<StandardHeader marketId="EPEX"/>`
    - `<Error err="Request limit exceeded, current limit is 1 ThrottlingStatusReq per 3 s" errCode="0"/>`
  - `</ErrResp>`

1.3 Performance Improvements

After a maintenance window, M7 users would sometimes experience difficulties to log back in M7 (either via ComTrader or the API).

M7 6.13 will significantly improve this situation:

- reduce the time taken to log in
- enable more users to log in at the same time,
  - and in general, have a better capacity to process inquiry requests in parallel.

1.4 Request's expiration time property default value

The existing AMQP message property called *expiration* enables API apps to control until when a request can be processed by M7.

As explained below in DFS180, a default value of 45 second will be applied as of M7 6.13 when this property is not explicitly provided by the client API application.

This is applicable to both inquiry and management requests.

AMQP Message Property	Description
content-type	Contains information about the XML payload version used as well as the used message type. Valid content-type definitions are (the version number has to be filled with the used version): - x-m7/request; version=x (Used by the clients when sending requests) - x-m7/response; version=x - x-m7/broadcast; version=x - x-m7/heartbeat; version=x - x-m7/error; version=x
reply-to	Contains the predefined trader's queue name that a response has to be sent to (See Request-Response Communication)
user-id	Contains the login-id of the logged in trader
app-id	Contains the application id given by the granting authority
correlation-id	Contains the request message id generated by each client
expiration	Contains an optional entry in miliseconds specifying if the request should be deleted if not executed within the specified time. See RabbitMQ Documentation for details.

3.1.9.2 Message Expiration

Clients may specify an expiration time for each request message. This allows the clients to protect themselves against the situation, when a request waiting in the request queue for a long time becomes obsolete, but eventually gets processed even if the client does not wish to execute the request anymore. If the expiration time set in AMQP Message Properties has passed and the message has not been consumed from the queue, it's deleted by RabbitMQ. During the message processing, M7 Trading also follows the `expiration` set in AMQP Message Properties. If no value is specified by the client, M7 Trading will use a default value of 45 seconds. If the expiration time has passed and therefore the message got expired, it's not processed by M7 Trading.

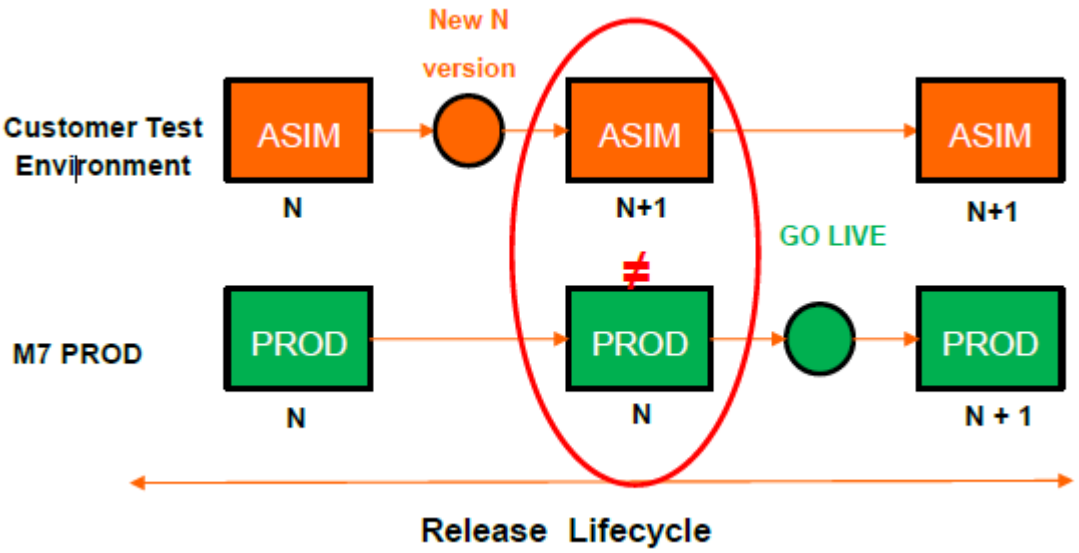
2. New XSIM Environment

The new XSIM Environment is an addition to the existing ASIM Environment and will be the production like environment. ASIM will be used to deploy and test the upcoming versions.

Configuration changes on member level (i.e. Load Management) need to be requested by the member for ASIM as well as for XSIM.

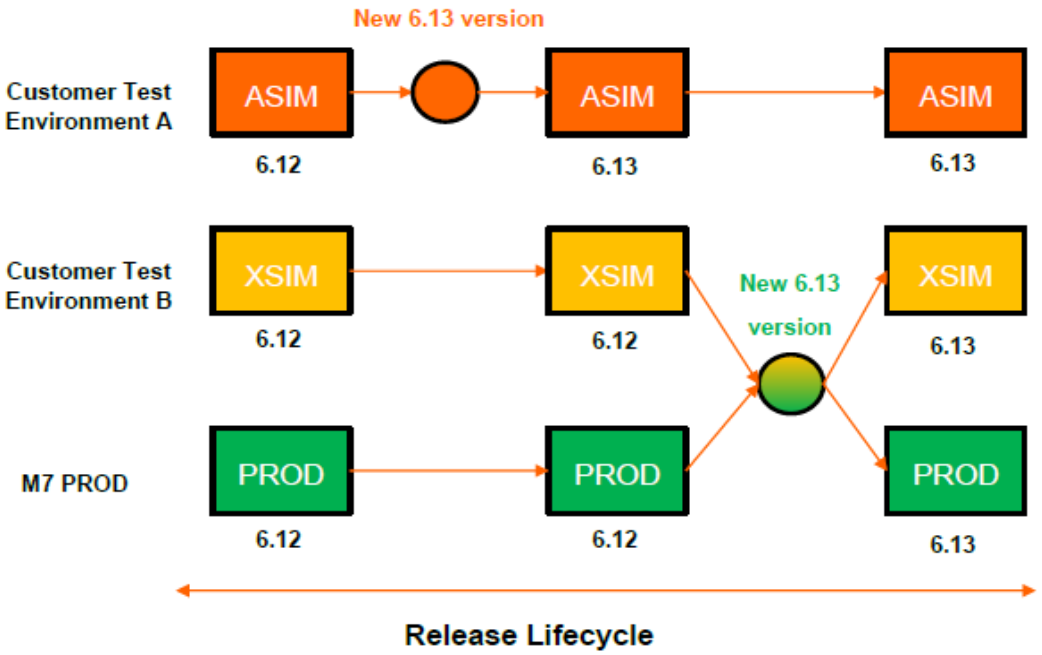
2.1 M7 Release Lifecycle until now

Currently, only one Simulation Environment is available for members. Thich lead to the unlikely situation of a version gap between Simulation and Production when the next release is delivered in ASIM. This results in a testing gap for clients and lacking opportunity to deliver a hotfix in Simulation before the Production deployment.



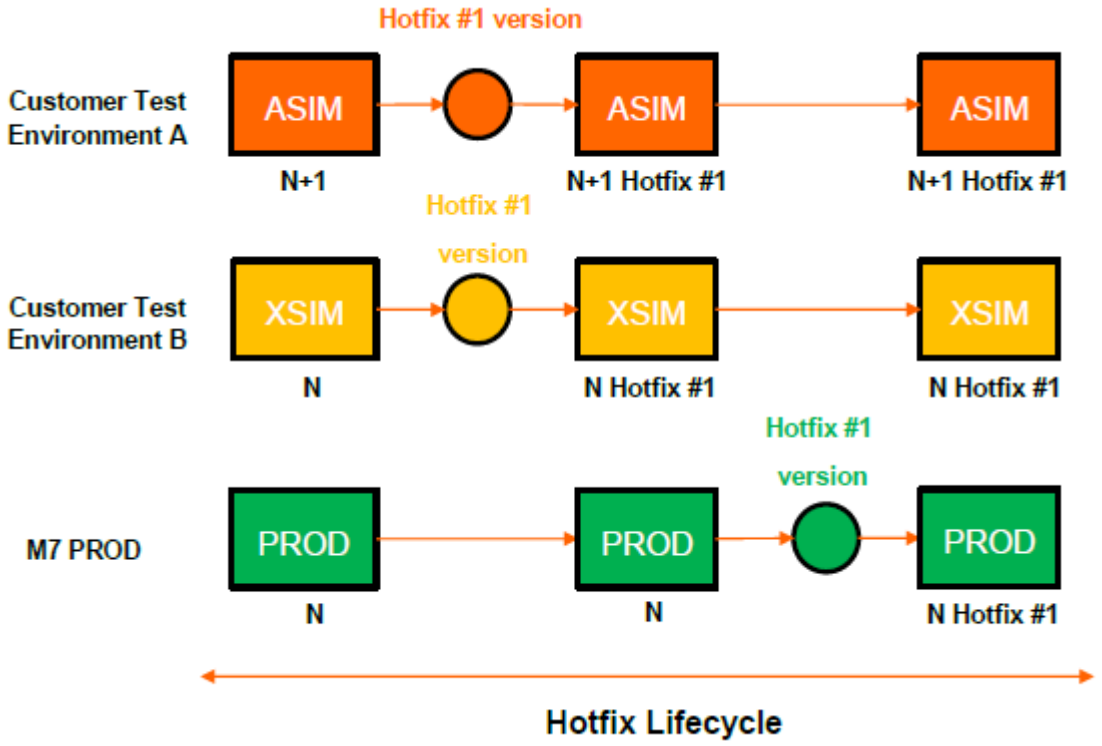
2.2 New M7 Release Lifecycle as of now

With a second Simulation environment there will be the opportunity for members to test their API in a Production like XSIM Environment or in ASIM for the upcoming release. Following a practical example on the current release versions:



2.3 New M7 Hotfix Lifecycle

With the additional XSIM Environment it will be possible to deploy a potential hotfix in a production like Environment (XSIM) even we already delivered an advanced M7 version (N+1) in ASIM.


Hotfix #1 version
Customer Test Environment A
ASIM
ASIM
ASIM
N+1
N+1 Hotfix #1
N+1 Hotfix #1
Hotfix #1 version
Customer Test Environment B
XSIM
XSIM
XSIM
N
N Hotfix #1
N Hotfix #1
Hotfix #1 version
M7 PROD
PROD
PROD
PROD
N
N
N Hotfix #1
Hotfix Lifecycle

2.4 XSIM Environment summary

The new XSIM Environment has…

Characteristics	Details
…dedicated Environment details (Attached to this communication)	• xsimu1.epex-lts.m7.deutsche-boerse.com, • xsimu2.epex-lts.m7.deutsche-boerse.com, • port 50860
…the same configuration as PROD	Products, schedules, reference data etc. Passwords are specific (default: Test0101)
…the same performance as ASIM	75% of production
…the same M7 version as in PROD	Except when a Hot Fix is needed and requires some customers test
…only local trading enabled for now	NOT connected to XBID for now
…the advantage that customers can test their new software version in a production like Environment	Allows faster & complementary testing roadmap for clients

Please do not hesitate to contact us should you require any further information.

Yours faithfully,

SEMOpx