

uIDA_NEMO_EXC_03: Disaster Recovery Site

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1. Introduction

This procedure describes the process of switching the PMB server to the Disaster Recovery Site (DRS), which involves a change in the IP address and a change of the PMB Shared Parameters.

The procedure will list the actions that the IDA NEMO Operator and the IDA Coordinator have to perform during and outside the Market Coupling Session (MCS).

A switch back to the primary site is not required during the MCS. As soon as the local technical issue is solved, the involved IDA NEMO Operator will take specific actions to switch back for the next Market Coupling Session, according to local procedures.

A Disaster Recovery Site is defined as a different PMB server that can work independently from the primary one but which requires a certain time to start the normal operational process.

For some IDA NEMO Operators the change of the disaster recovery also involved the change of the physical location and the e-mail address and telephone numbers, according to the annex in SIDC_JOINT_OTH_02 procedure.

To ensure that the Disaster Recovery Site works successfully, each IDA NEMO Operator has the possibility to test the Disaster Recovery site in production, following the conditions described in chapter 2.4. in this procedure.

1.1. Purpose

The purpose of this procedure is to describe the steps that the IDA Coordinator and the other IDA NEMO Operators have to take in case of a IDA NEMO Operator switches its PMB server to the Disaster Recovery Site.

1.2. Governed / Regulated by

- All NEMO Intraday Operational Agreement
- Intraday Auctions – Detailed design
- Intraday Auctions Implementation HLC

1.3. Associated procedures

- IDA_NEMO_OTH_01 - IDA Calls
- SIDC_JOINT_FAL_01 – Incident Management
- IDA_NEMO_OPE_01-IDA Coordinator Switch

2. Procedure

If an IDA NEMO Operator needs to switch its PMB server to the Disaster Recovery Site, the IDA NEMO Operator has to immediately inform the IDA Coordinator and an Incident Committee will be triggered according to procedure SIDC_JOINT_FAL_01.

Switching a PMB server to the Disaster Recovery Site involves a change of the PMB IP address and therefore, the shared parameter “Active Site” has to be changed from “Primary” to “Secondary”.

- a. If the switch is required during the Market Coupling Session, it will be performed only if it occurs before the start of the IDA Coordinator’s calculation. In this case, Sections 2.1 and 2.2 will be used.

- If the calculation process has already started, the concerned IDA NEMO Operator will continue the Market Coupling Session without the PMB, by applying the backup procedures for sending and receiving files.
- b. If the PMB critical issue still persists until the next IDA session becomes active, an IC will be organized in order to perform the switch towards the Disaster Recovery Site until the MCS becomes active at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3. In this case, Section 2.3 will be followed.
 - c. If the switch of the PMB server to the Disaster Recovery Site is required for several IDA sessions in a row, the IDA Coordinator will perform before every IDA session the change of the Active Site shared parameter before the MCS becomes active at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3. In this case, an IC does not need to be triggered and Section 2.4 will be followed.

The switch of the PMB to the Disaster Recovery Site has to take into consideration the following constraints:

- Only the IDA Coordinator is able to modify a Shared Parameter in the PMB;
- The change of the Shared Parameter “Active Site” can be performed only if the MCS is already active;
- A switch to the Disaster Recovery Site is performed during the MCS only if the IDA Coordinator’s calculation has not started yet;
- If the IDA NEMO Operator that needs to switch to the Disaster Recovery Site is the IDA Coordinator, an IDA Coordinator switch will be performed according to procedure IDA_NEMO_OPE_01.

Remark: If the shared parameter “Active Site” is changed from “Primary” to “Secondary”, the PMB will use it only for the current MCS. Once a new MCS is created, the modified shared parameter will not be taken into consideration anymore. Instead, the PMB will use the IP address of the Primary Site, as indicated in the Shared Configuration File. This is why the parameter needs to be modified every time a new MCS is created.

The corresponding Primary and Secondary IP address of all IDA NEMO Operators are indicated in the Shared Configuration File.

2.1. Switch of the PMB server to the DRS during the IDA session - Required steps

Step	Switching to the Disaster Recovery Site in PMB	Procedures
1	The concerned IDA NEMO Operator informs the IDA Coordinator by phone that its PMB needs to be switched to the Disaster Recovery Site.	IDA_NEMO_O TH_01 - IDA Calls
2	The IDA Coordinator triggers an IC and the IC will confirm if the switch to the Disaster Recovery Site will be performed or not during the current MCS.	SIDC_JOINT_F AL_01
3	If the concerned IDA NEMO Operator is the IDA Coordinator, a IDA Coordinator switch will be performed.	IDA_NEMO_O PE_01

4	The concerned IDA NEMO Operator applies local procedures for switching its PMB server to the Disaster Recovery Site and confirms in the IC once this is completed.	
5	All PMBs are switched to Manual Mode.	
6	The IDA Coordinator changes the PMB Shared Parameter “Active Site” from “Primary” to “Secondary”. The new IP address is automatically distributed to the Cloud and all PMBs receive a notification.	N46
7	All PMBs perform a check of the communication lines and the shared configuration check.	
8	The IDA Coordinator sends the relevant ‘switch to the Disaster recovery site’ communication (IDA_JOINT_11) to all IDA NEMO Operators	
9	The PMB that switched to the Disaster Recovery Site compares the Network and Order Data files received in the Local PMB with the ones received by the IDA Coordinator (in the IDA Coordinator’s screen). If some files are missing, the concerned IDA NEMO Operator asks the other IDA NEMO Operators to send again the missing files by using the PMB functionality.	
10	All PMBs are switched back to Automatic Mode.	
11	The IC ends once the cooperation between parties is no longer necessary.	

Step 1: The IDA NEMO Operator informs the IDA Coordinator that its PMB needs to be switched to the Disaster Recovery Site.

When a IDA NEMO Operator, due to any circumstances, has to switch its PMB to the Disaster Recovery Site, the concerned IDA NEMO Operator contacts the IDA Coordinator as soon as possible by phone.

Step 2: The IDA Coordinator triggers an Incident Committee and the IC will confirm if the switch to the Disaster Recovery Site will be triggered or not during the current MCS.

The IDA Coordinator triggers an IC by sending the external communication *IDA_JOINT_01* according to procedure *SIDC_JOINT_FAL_01*.

The IC will confirm if the switch to the Disaster Recovery Site will be performed or not during the Market Coupling Session:

- a. If the IDA Coordinator’s calculation process has not started yet, the switch to the Disaster Recovery Site will be performed and the next steps will be followed.
- b. If the IDA Coordinator’s calculation process has already started, the switch to the Disaster Recovery Site will not be performed during the current MCS.

The concerned IDA NEMO Operator will continue the Market Coupling Session without the PMB, by applying the backup procedures for sending and receiving files.

If the PMB server critical issue persists until the next IDA session becomes active, an IC will be organized in order to perform the switch towards the Disaster Recovery Site until the MCS becomes

active at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3 towards the Disaster Recovery Site according to Section 2.3.

Step 3: If needed, a IDA Coordinator switch is performed.

If the IDA NEMO Operator that needs to switch its PMB server to the Disaster Recovery Site is the IDA Coordinator, a IDA Coordinator switch will be performed according to procedure IDA_NEMO_OPE_01.

Step 4: The concerned IDA NEMO Operator applies local procedures for switching its PMB server to the Disaster Recovery Site and confirms in the IC once this is completed.

As IDA NEMO Operators use a different process for switching their PMB from the Primary to the Disaster Recovery Site (Secondary), the IDA NEMO Operator follows its own local procedures to switch for completing this process.

Once this process is completed, the IDA NEMO Operator informs the Incident Committee.

Step 5: All PMBs are switched to Manual Mode.

Once the concerned IDA NEMO Operator confirms in the IC that the technical switch of the PMB server to the Disaster Recovery Site is completed, the IDA Coordinator guides all the IDA NEMO Operators for switching their PMBs to Manual Mode.

Every IDA NEMO Operator confirms in the IC once this is done.

Step 6: The IDA Coordinator changes the PMB Shared Parameter "Active Site" from "Primary" to "Secondary".

Once all PMBs are in Manual Mode, the IDA Coordinator enters the section "Change Shared Parameters" from the "Administration" menu.

The IDA Coordinator selects the concerned Broker, selects "Active Site" from the field "Select Parameter" and changes the parameter from "Primary" to "Secondary".

The new IP address is automatically distributed to the Cloud and all PMBs receive a notification.

Step 7: All PMBs perform a check of the communication lines and the shared configuration check.

All IDA NEMO Operators will check the connectivity among all PMBs, by clicking the "Check Communication Lines" from the "Administration" menu.

All IDA NEMO Operators will check the shared configuration check to compare the Shared configurations and Common parameters in the Broker cloud, from the "Administration" menu.

Step 8: The IDA Coordinator sends the relevant 'switch to the Disaster recovery site' communication (IDA_JOINT_11) to all IDA NEMO Operators.

The IDA Coordinator sends the IDA_JOINT_11 message to all the IDA NEMO Operators.

Step 9: The IDA NEMO Operator that switched to the Disaster Recovery Site compares the Network and Order Data files received in the Local PMB with the ones received by the IDA Coordinator.

The IDA NEMO Operator that switched to the Disaster Recovery Site compares the Network and Order Data files received in the Local PMB with the ones received by the IDA Coordinator (in the IDA Coordinator's screen).

If some files are missing, the concerned IDA NEMO Operator asks the other IDA NEMO Operators to send again the missing files by using the PMB functionality or, if needed, the IDA Coordinator will send them by email, according to the backup procedures.

Step 10: All PMBs are switched back to Automatic Mode.

Once the Step 8 is completed, the IDA Coordinator guides all the IDA NEMO Operators for switching their PMBs to Automatic Mode.

Every IDA NEMO Operator confirms in the IC once this is done.

Step 11: The IC ends once the cooperation between parties is no longer necessary.

The IDA Coordinator declares the end of the IC once the cooperation between parties is no longer necessary.

2.2. Switch of the PMB server to the DRS before the start of IDA session (before 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3)

If the IDA Coordinator's calculation process has already started on the previous IDA session, the switch to the Disaster Recovery Site was not performed in order not to delay the whole process and to endanger the coupling.

If the PMB server critical issue still persists on the next IDA session, the concerned IDA NEMO Operator informs the IDA Coordinator and an IC will be organized at 13.00 for IDA1, 18.30 for IDA2 and 8.00 for IDA3.

The switch towards the Disaster Recovery Site needs to be performed by the IDA Coordinator until the IDA session becomes active at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3, in order to avoid the restart of the first process "*Configuration Synchronization*" in all PMBs.

The IDA Coordinator will perform the following actions:

- a. Setting the PMB to Manual Mode.

Since the change of the shared parameter "*Active Site*" requires that the MCS is in active mode, the IDA Coordinator sets its PMB to Manual Mode. This action automatically changes the MCS from *Pending* to *Active* mode.

- b. Changing the shared parameter "*Active Site*" according to Step 6 above.

The new IP address is automatically distributed to the Cloud and all PMBs receive a notification.

All IDA NEMO Operators perform a check of the communication lines to ensure that all PMBs are connected, according to Step 7 above.

2.3.1. If the switch towards the Disaster Recovery Site cannot be performed until the IDA session becomes active at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3.

If the switch towards the Disaster Recovery Site could not be performed by the IDA Coordinator until the IDA session becomes active at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3, the *Configuration Synchronization* is not successfully performed because a PMB will be disconnected from the Cloud.

In this case, the IDA Coordinator triggers immediately an Incident Committee.

The IDA Coordinator changes the shared parameter “*Active Site*” from “*Primary*” to “*Secondary*” for the concerned IDA NEMO Operators, according to Step 6 above.

Then, all IDA NEMO Operators need to restart the first process “*Configuration Synchronization*” in all PMBs.

2.3. Switch of the PMB server to the DRS for several IDA sessions in a row

Once a new IDA session is created, the modified Active Site shared parameter is not taken into consideration anymore by the PMB. Instead, the PMB will use the IP address of the primary site indicated in the Shared Configuration File.

If the switch of the PMB server to the Disaster Recovery Site is required for several IDA sessions in a row, the concerned IDA NEMO Operators will inform all IDA NEMO Operators by an email indicating the exact period.

The IDA Coordinator will perform in every IDA session the change of the “*Active Site*” shared parameter from “*Primary*” to “*Secondary*” before the IDA session becomes active at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3, according to Step 6 above.

In this case, an IC does not need to be triggered because the other PMBs automatically receive the IP address for the Secondary site of the concerned IDA NEMO Operator and no manual action is required.

If the switch towards the Disaster Recovery Site could not be performed by the IDA Coordinator until the IDA session becomes *Active* at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3, Section 2.3.1 will be followed.

2.4. Disaster Recovery Site test.

To ensure the good functionality of the disaster recovery site, the IDA NEMO Operator has the possibility to perform, periodically, the production IDA session in the disaster recovery site.

The dates for testing the disaster recovery site, will be published in the 'DRS Test Calendar' and uploaded in Project Place for information purpose.

This calendar has to be prepared for the whole year in advance (before end of preceding year) by NEMO OPSCOM.

The days that the IDA NEMO Operators are testing the DRS, he cannot be IDA Coordinator.

The day before the concerned IDA NEMO Operator has to send a reminder of the test to all the IDA NEMO Operators. The DRS test days, the concerned IDA NEMO Operator contacts the IDA Coordinator through an Operational Call at 13.00 for IDA1, 18.30 for IDA2 and 8.00 for IDA3 of the

current Market Coupling Session, to remember him about the test. The IDA Coordinator will perform the change of the “Active Site” shared parameter from “Primary” to “Secondary” before the IDA session becomes active at 13.30 for IDA1, 19.00 for IDA2 and 8.30 for IDA3, according to Step 6 above. Once the steps 6 and 7 have been performed successfully, the IDA Coordinator will send the *IDA_JOINT_11 : PMB switched to the Disaster Recovery Site*, message.

In this case, an IC does not need to be triggered because the other PMBs automatically receive the IP address for the Secondary site of the concerned IDA NEMO Operators and no manual action is required.

2.5. Operational Manual Reference

See chapter “Change Shared Parameter” in the User Guide provided by 