

CleanSeaNet

Data Centre

[CSNDC]

Incident Handling Procedures (IHP)

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1 Introduction

This document is aimed at providing a quick guide to address the most common incidents in the usage of the CSN-DC. It is assumed that the reader has the following characteristics:

- Familiarity with the CSN-DC typical business
- Understanding of the CSN-DC User Functions
- Understanding of the CSN-DC Portal functions
- System administration capabilities
- Familiarity with the usage of the WebLogic console

The document is organised in a form of troubleshooting guide, e.g. with the following sections:

- A list of possible incidents, from the user perspective, with reference to the possible causes
- For each of the possible causes, identified with a unique label, there is a quick procedure to be executed in order to:
 - Check if that was actually the cause of the problem
 - Resolve the problem

As such, the document is addressed to the typical activities carried out by the 1st and/or 2nd line of Operations Support (depending on the skills of the personnel, some actions may be performed also by the 1st line).

The document does not address all complex cases, such as a defect in the SW or other complex situations which require a 3rd line intervention. Therefore the typical workflow is:

- An incident occurs and is drawn to the attention of the Operation Support
- The Operations Support investigates using this troubleshooting guide
- If the problem cannot be resolved, it gets escalated to the 3rd line (in this case, the CSN-DC Contractor)

For most incidents, a number of different causes may exist. In order to identify the possible cause, the person handling the incident shall execute the check procedure of the first possible cause. In case the check is positive, the recovery procedure is to be executed. It is expected that the incident is solved and in this case the procedure is finished. If the check is negative (or the previous recovery action did not solve the problem), the next possible cause is to be checked. Possible causes are to be tested following the order with which they are listed in Table 1 "List of possible Incidents".

2 List of possible incidents

Here follows a list of the most typical incidents that may occur. They are heterogeneous in terms of complexity and likelihood to occur. Moreover the list is intended to be incremental, e.g. it can be extended if new cases are identified after the first issue of this document.

The list includes various types of causes, including user errors, system errors, corrupted data, etc., it is not meant to be exhaustive, but it should cover the majority of cases, as the final objective is to make the intervention as effective as possible in terms of success and timeliness. Therefore the troubleshooting approach is a trade-off between completeness (trying to cover as many cases as possible) and effectiveness (identifying problems which can be successfully addressed with the given competences of the operators).

In this analysis, all trivial possible problems are excluded by definition, i.e. it is assumed that there are some basic services which shall always be available, and include:

- Database
- Network
- All machines

The table below is organised as follows:

- USR-INC-ID: identifier of the incident as perceived by the user (this can be the end-user, the MMS operators, EMSA project team, etc.)
- Symptom: brief description of the incident
- Possible causes: list of one or many possible causes of the problem
- CAU-ID: identifies of the possible cause of the problem

The CAU-ID will be then repeated in the following subsection to address the check and the solution on a case by case basis. The list of possible causes should be analysed one by one, in order from top to bottom. The case U_ERR is obviously not analysed in the following sections, as it relates to the usage of the system by the user, not to a system malfunctioning.

USR-INC-ID	Symptom	Possible causes	CAU-ID
U_NO_SOAP	Service Provider reports problems with SOAP MD5 service for CleanSeaNet-DC transfers	SP is making a wrong md5 soap call	U_BAD_MD5
		MD5 service is down or malfunctioning	S_NA_MD5-A
		Network connection problem	S_NA_MD5-B
U_NO_CONN	Service Provider reports problems in connecting to CleanSeaNet-DC	External ftp service not accessible	S_NA_CONN
U_NO_LOG	User cannot log in	Access blocked due to OAM/OIM/Liferay problem for that specific user	S_NA_IDM-1
		OAM/OIM unavailability/anomaly or Liferay unavailability	S_NA_IDM-2
		User error (e.g. wrong user name password, etc.)	U_ERR_LOGIN
U_NO_SYS	The entire system is not working but all machines are up and running. Most of (or all) the backend services are not working properly. The user cannot log in.	Database not available.	S_NA_DB
U_NO_APP	User cannot access any of the main applications (e.g. GIS Viewer, Planning)	The business layer is not available	S_NA_BL-A
		The load balancer of the business layer is not available	S_NA_BL-B
		Redirection towards Load Balancer of the business layers not working properly	S_NW_BLRED
U_DOUBLE_DATA	More than one entry is available	Double delivery of package by Service Provider	S_DD_ING

	in the GISViewer for the same scene ID	Double Status	S_DOUBLE_STAT US
U_NO_EO_SCENE_VISIBLE	All EO scenes with STATUS = "DELIVERED" fail to be visualised in the GISViewer, but image frames and metadata are visible.	WebLogic is providing GeoServer with a wrong Java rendering library	S_NA_GS-1-C
		NFS Storage repository not available. In this case, GeoServer is up but its data file storage is not available.	S_NA_GS-1-B
		GeoServer service not available	S_NA_GS-1-A
		None identified, default procedure	S_NA_WEBLOGIC _DEF
U_SPECIF_EO_SCENE_NOT_VISIBLE	One EO scene with STATUS = "DELIVERED" fails to be visualised in the GISViewer, but image frame and metadata are visible. However, other EO scenes can be visualised.	Ingestion into GeoServer failed	S_NW_ING S_NA_GS-2
U_SPECIF_EO_SCENE_CATALOGUED	One EO scene remains with STATUS = "CATALOGUED" for more than 1h 30 m after acquisition time	Ingestion problems for package QNO	S_NW_ING
U_SPECIF_EO_SCENE_PENDING	One EO scene remains with STATUS = "PENDING" for more than 1h 30 m after acquisition time	Ingestion problems for package EOP	S_NW_ING
U_SPECIF_OS_DATA_NOT_AVAILABLE	Total oil spills column set to N/A in a scene with STATUS = Catalogued or Delivered for more than 1h 30 m after acquisition time	Ingestion problems for package OSN	S_NW_ING
U_NO_OS_DATA_VISIBLE	No oil spill layer visible in the GISViewer (failure for ALL Scene IDs)	Deegree WFS not available	S_NA_DE_1

U_SPECIF_OS_DATA_NOT_VISIBLE	Oil spills not visible for a specific Scene ID	Items not inserted in DeeGree	S_NA_DE_2 S_NW_ING
U_NO_DER_DATA_VISIBLE	No DER layer visible in the GISViewer (such as SAR Wind/Waves Height) (failure for ALL Scene IDs)	Geo Server not available	S_NA_GS_1
U_SPECIF_DER_DATA_NOT_VISIBLE	DER data (such as SAR Wind/Waves Height) not visible for a specific Scene ID	Items not inserted in GeoServer	S_NA_GS-2 S_NW_ING
U_NO_BG_DATA_1	CMAP Background map is not available	CMAP cluster not available: Problems with network connectivity	S_NA_CM_A-1
		CMAP cluster not available: Configuration Issue in CSN	S_NA_CM_A-2
		CMAP cluster not available: Problem with CMAP cluster	S_NA_CM_A-3
		Invalid CMAP address in the configuration file	S_NA_CM_B
U_NO_BG_DATA_2	DEMIS Background map is not available	DEMIS layer not available	S_NA_DEM
U_NO_AIS	AIS Ship data not available on the GIS Viewer	AIS data not correctly ingested because service is not running	S_NW_AIS-A
		AIS data not correctly ingested because there is a failure on the service operations	S_NW_AIS-B
U_NO_DO	User cannot download data (including the POR export for Coastal States)	Geoserver service not available (only for EO data)	S_NA_GS-1-A
		Deegree WFS not available (only for oil spill data)	S_NA_DE-1
		Shared temporary directory not accessible	S_NA_SD
U_NO_UP	User cannot upload data (e.g. uploading planning files from the POR, uploading alerting areas, sensitive area, etc).	Data are corrupted or in the wrong format	U_BAD_DATA
		Shared temporary directory not accessible	S_NA_SD
U_NO_BG	Cannot access budget visualisation from the POR	JMS queue not available	S_NA_JM
		FinSys not available	S_NA_FS
U_NO_EMAIL	No e-mails sent	JMS queue not available	S_NA_JM

	after the approval	FinSys not available	S_NA_FS
U_ALERT_NOT_GENERATED	alert for some or all of the involved Coastal States is not Available in the Alert Admin interface (generation failed) and was not sent out	Ingestion problems for package OSN, up to the Pre-Inventory	S_NW_ALERT_1
		Problem with FOP Report Manager	S_NW_ALERT_FOP
		Problem with Report Generator	S_NW_ALERT_REP
		Alert is in DEBUG mode	S_SM_ALERT_DEBUG
U_ALERT_NOT_SENT	Alert not received by the user but report available in the Alert Admin interface	User error (verify that the user is correctly set up to receive those alerts)	U_ERR_ALERTCONFIG
		User error (the alerting area of the user is not correctly defined, or is not as the users expects it to be)	U_ERR_ALERTAREA
		Alert put in simulation mode	S_SM_ALERT
		Alert turned off	S_SM_ALERT_OFF
		Problem with Alerting Emailer	S_NW_ALERT_EMAILER
		Problem with EMSA email server	S_NW_ALERT_EMAIL_SERVER
		Alert scheduler hanging.	S_NW_ALERT_HANGING
U_BAD_ALERT	Alert received but with some missing or corrupted data	Geoserver service not available	S_NA_GS-1-A
		CMAP cluster not available	S_NA_CM_A
U_CANCEL_SCENE_NOT_POSSIBLE	Not possible to cancel a scene in the POR	Impossible to send the JMS queue message	S_NA_WEBLOGIC_DEF
U_NO_UP_FINSYS	Financial System is not updating with new orders/scenes	FinSys JMS Queue connection problem	S_NA_QFS S_NA_FS
U_NO_UP_JOU	JOU is not updating correctly	JMS Queue connection problem	S_NA_QJOU
		MD5 service is down or malfunctioning	S_NA_MD5_A
		MULE service is down	S_NA_MU
		No cause identified, default procedure	S_NA_MU_DEF S_NA_JM
M_WEBLOGIC_CSNSERVER	In weblogic console, state of server is different from "RUNNING"	CSNServer is down	S_NA_CSNSERVER

Table 1 List of possible incidents

3 Incident handling procedures

This chapter reports the procedures to address the various possible incidents. As already described above, this chapter is divided in sections that refer to the individual causes of the incident. Some are trivial (e.g. contact EMSA A3 because the database is not available), but have been reported just for completeness.

In most cases the causes are mapped one-to-one to a specific component of the CSN-DC. The components listed below are mapped one to one with those listed in detail in the OMM, Chapter 4. Please refer to the OMM for all descriptions and procedures regarding the check of the status of the service, its log and the possible recovery actions.

Basically the idea is that the procedures to check and to remedy to the possible failures are all listed in the OMM, while this document is simply a guide for mapping the type of incident to the possible causes and therefore the corresponding procedure indicated in the OMM. It was chosen not to replicate the information already included in the OMM, so as to avoid redundancy which would be difficult to manage as both documents evolve.

For every recovery action (but those regarding EMSA A3) there is a specific comment regarding the impact of the recovery on the ingestion activity of the system. This is to help operators to decide when it is better to recover the system, so to avoid possible data ingestion problems.

Finally it is worth pointing out that one case is far more complex than others, and is the case where the data do not pass successfully through the whole processing chain. This is described in § 3.4 below which is the most articulated section.

3.1 S_NA_IDM

Symptom: User cannot log in

3.1.1 S_NA_IDM-1

Possible Causes	Access blocked due to OAM/OIM/Liferay problem for that specific user
Check	System can be accessed using the login of another user: test using your login for example
Recovery	Consult IDM-OM and, if the incident is not solved, contact EMSA C3.2
Remarks	N/A

3.1.2 S_NA_IDM-2

Possible Causes	OAM/OIM unavailability/anomaly or Liferay unavailability
Check	No one can use the CSN Portal; SSO service is not working properly
Recovery	Consult IDM-OM and, if the incident is not solved, contact EMSA C3.
Remarks	N/A

3.1.3 U_ERR_LOGIN

Possible Causes	User error (e.g. wrong user name password, etc.)
Check	System can be accessed using the login of another user: test using your login for example
Recovery	Contact EMSA C3.2
Remarks	N/A

3.2 S_NA_DB

Symptom: The entire system is not working but all machines are up and running. Most of (or all) the backend services are not working properly. The user cannot log in.

Possible Cause	Database not available.
Check	Check the Log files of Import, WebCat Feeder, Alert Emailer, POR, GIS Viewer. If the database is down, you will see errors stating that the component cannot connect to the DB.
Recovery	Contact EMSA A3
Remarks	See logs location below

Logs Location:

Import	Log into ppmas01 using Keepass entry "PPMAS01 CSN DC PRODUCTION" Log File: /usr/acs/log Import.log
WebCat Feeder	Log into ppmas01 using Keepass entry "PPMAS01 CSN DC PRODUCTION" Log File: /var/www/html/logs webcat_feeder_yyyy-mm-dd.log
POR	Log into pwls09 using Keepass entry "PWLS09 CSN DC PRODUCTION" Log File: /var/www/html/logs por_yyyy_mm_dd.log
GIS Viewer	Log into pwls09 using Keepass entry "PWLS09 CSN DC PRODUCTION" Log File: /var/www/html/logs wup_yyyy_mm_dd.log websec_yyyy_mm_dd.log
Alert	Log into pwls09 using Keepass entry "PWLS09 CSN DC PRODUCTION" Log File: /var/www/html/logs emsa_notification_scheduler_yyyy_mm_dd.log

3.3 S_NA_BL

Symptom: User cannot access any of the main applications (e.g. GIS Viewer, Planning, COM, etc.) but can access the Help pages (which are static information)

3.3.1 S_NA_BL-A

Possible Cause	The business layer is not available
Check	Check availability of the apache by entering the following URLs in a browser (internal as this will check the availability regardless of the external reverse proxy). http://pwls09:81/sibilla-static/ReleaseNotes/html/application.htm (this is for the

	business layer 09) http://pwls10:81/sibilla-static/ReleaseNotes/html/application.htm (this is for the business layer 10)
Recovery	If it is impossible to connect to the wls09/10 it means that the apache service is not working properly. Restart the apache service on the machine where it failed. Log as root and use: service httpd restart
Recovery Impact	Apache service can be restarted at any time as it has no impact on the data ingestion
Remarks	N/A

3.3.2 S_NA_BL-B

Possible Cause	The load balancer is not available
Check	Check availability of the apache by entering the following URL in a browser (this is an internal url, as this will check the availability regardless of the external reverse proxy). http://pcsn:7021/sibilla-static/ReleaseNotes/html/application.htm (this is for the load balancer)
Recovery	If it is impossible to connect to the pcsn:7021 it means that the apache service acting as a load balancer is not working properly. Restart the apache service on the load balancer machine. Log as root on pcsn and use: service httpd restart. Contact EMSA A3.
Recovery Impact	Apache service can be restarted at any time as it has no impact on the data ingestion
Remarks	N/A

3.3.3 S_NW_BLRD

Possible Cause	Redirection towards Load Balancer of the business layers not working properly
Check	Check that Business Layer is not reachable even if S_NA_BL_A check was negative. The problem may be related to the redirection to external URL. This can be checked using the following URL: https://csndc.emsa.europa.eu/sibilla-static/ReleaseNotes/html/application.htm
Recovery	Contact EMSA A3.
Recovery Impact	TBD
Remarks	N/A

3.4 S_NW_ING

This case has been split into a number of subcases, to be checked independently.

Section 4.1 contains a troubleshooting chart that simplifies the debugging process for the ingestion chain.

3.4.1 S_NW_ING_1

Symptom: expected data package is not in the Inventory

3.4.1.1 S_NW_ING_1-A

Possible Cause	External FTP is not reachable by the Prelimport component
Check	<p>Inspect the log of Prelimport component (OMM, 4.2).</p> <p>If the external FTP is not reachable or the credentials used are invalid, you should see something like:</p> <ul style="list-style-type: none"> - Prelimport_KSat failed : Cannot connect via FTP to xxxx on port yy. - Prelimport_KSat failed : Cannot authenticate with username xxx and password yyyy. <p>Try to connect with an FTP client to the external FTP Site. Credentials can be found in the file <code>/usr/acs/conf/acs_global_config.ini</code> on the PMAS01 machine.</p> <p>The tags to be searched for are:</p> <p>SP_FTP_ADDDDRESS SP_FTP_PORT XXX_FTP_USER XXX_FTP_PWD XXX_FTP_MODE</p> <p>Where XXX is the Service Provider and can be KSAT, CLS, EGEOS or EDISOFT.</p>
Recovery	<p>If credentials and FTP Address are correct, check the status of the FTP Server on both pftp1 and pftp2 servers and contact EMSA A3.</p> <p>If credentials and/or FTP address are wrong, fix them in the <code>acs_global_config.ini</code> file and report them to contractor.</p>
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages
Remarks	N/A

3.4.1.2 S_NW_ING_1-B

Possible Cause	SP never sent the file
Check	With an FTP client log to the external FTP site and check if there are file on both the root and the temporary directory
Recovery	<p>If there are file on the temporary directory, wait to see if these files are increasing in size (it means that a transfer is in place). If the size is constant, maybe the Service provider forgot to move the file to the root directory. You can do the move yourself so to start the ingestion but in any case contact the Service Provider.</p>
Recovery Impact	Double check that the package transmission has ended, as renaming the file before due time implies data corruption and package rejection
Remarks	N/A

3.4.2 S_NW_ING_2

Symptom: expected data package is not in the Inventory

Possible Cause	External FTP is not reachable by a Service Provider
Check	Check if the Service Provider can access the external FTP machine. Credential to be used can be found on the <code>acs_global_config.ini</code> file (see S_NW_ING_1 for details)
Recovery	If the Service Provider cannot access the external FTP machine contact EMSA A3.
Remarks	N/A

3.4.3 S_NW_ING_3

Symptom: expected data package is not in the Inventory

Possible Cause	Pre-Import service is down
Check	<p>Pre-Import is a script that is regularly launched via the Cron service available in Linux.</p> <p>If there are no files to be imported, the script can last less than a second, hence it may not be detected with a <code>ps -ef</code> command.</p> <p>To verify if the Pre-Import service is working properly check the status of the Crond service using the command indicated in OMM, 4.2 - Service Status and then check the Pre-Import service log file for possible errors.</p> <p>Moreover, you can manually launch the <code>PreImport</code> command as written in the crontab file. Use the following command to print out the crontab:</p> <pre>crontab -l -uopemsa</pre>
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, § 4.2- service start
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages
Remarks	<p>Currently, there is a <code>PreImport</code> process for every Service Provider plus one for all MyOcean Sites.</p> <p>The parameter of the <code>PreImport</code> command determines the account the component will look up (Service Providers or MyOcean's sites)</p>

3.4.4 S_NW_ING_4

Symptom: expected data package is not in the Inventory

Possible Cause	Vsftpd – PDS not available
Check	<p>Check the status of the service using the command indicated in OMM, 4.10 - Service Status</p> <p>Moreover, an error should be detected on both <code>PreImport</code> and <code>Import</code> components log files.</p> <p><code>PreImport</code> will issue an error only when it receives a new package from the external FTP, while the <code>Import</code> continuously polls this account, thus the error is shown in any case. The expected error is something like:</p> <pre>"..... Problem/Error connecting to host ppmas01/raid0/opemsa/ftplnBasket"</pre>
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM,

	§4.10 - Service Start
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages
Remarks	N/A

3.4.5 S_NW_ING_5

Symptom: expected data package is not in the Inventory

Possible Cause	Import is down
Check	Check the status of the service using the command indicated in OMM, 4.3 - Service Status It can happen that the service is up but in an inconsistent status. Thus, if the service is up, check its log: This service dumps a heartbeat line about every second. This line is similar to: <i>"recpolid: 160 unlocked at 22-Jan-2012_14:12:40.436"</i>
Recovery	Restart the service (in case it is down or the heartbeat is not shown in the log) using the procedure indicated in OMM, 4.3 - Service Start
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.4.6 S_NW_ING_6

Symptom: expected data package is not in the Inventory

Possible Cause	Corrupted Package
Check	Check EMSA Pre-Inventory log file OMM, 4.4 - Log File
Recovery	Contact the SP
Remarks	N/A

3.4.7 S_NW_ING_7

Symptom: file not accessible.

3.4.7.1 S_NW_ING_7-A

Possible Cause	ISM Light not available
Check	Check the status of the service using the command indicated in OMM, 4.14 - service status
Recovery	Restart the services (in case it is down) using the procedure indicated in <ul style="list-style-type: none"> • OMM, 4.14 - Service Start
Recovery Impact	Likely, after the recovery it will be necessary to re-ingest all packages that were affected by this incident
Remarks	N/A

3.4.7.2 S_NW_ING_7-B

Possible Cause	Network File System (NFS) not available.
Check	Verify the availability of the NFS service. To do so, run the command 'll /shared_nfs/' on ppmas01, pwls09 and pwls10 servers; a list of directories like

	<p>the following should be displayed:</p> <pre>[root@qpmas02 ~]# ll /shared_nfs/ total 32 drwxr-xr-x 16 oracle oinstall 4096 Jun 5 09:45 geoserver_data drwxrwxrwx 54 root root 4096 Jun 4 14:15 ism_store drwx----- 2 root root 16384 May 8 15:49 lost+found drwxrwxrwx 19 root root 4096 Jun 15 10:02 shared_tmp drwxrwxrwx 2 root root 4096 Jun 4 12:11 vcl.tmp [root@qpmas02 ~]#</pre> <p>In this case, the NFS is working. If not, then proceed to the recovery procedure.</p>
Recovery	Contact EMSA A3
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages
Remarks	N/A

3.4.8 S_NW_ING_8

Symptom: expected data package is not in the Inventory

Possible Cause	Error in the Inventory service
Check	Check the status of the service using the command indicated in OMM, 4.5 - Service Status and check its log file
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, 4.5 - Service Start or escalate if cannot solve the problem detected in the log file
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages
Remarks	N/A

3.4.9 S_NW_ING_9

Symptom: PV is not generated

Possible Cause	EOP and/or QNO package has not arrived.
Check	Verify the ingestion chain (all previous S_NW_ING steps) of the missing package
Recovery	Use the recovery procedure according to the step that failed
Recovery Impact	See the Recovery Impact of the step that failed
Remarks	N/A

3.4.10 S_NW_ING_10

Symptom: PV is not generated

Possible Cause	QNO times are not consistent with the processing logic
Check	Check if the QNO and EOP have been ingested but the order is still pending
Recovery	Escalate to the Contractor

Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.4.11 S_NW_ING_11

Symptom: PV is not generated

3.4.11.1 S_NW_ING_11-A

Possible Cause	TLDaemon service is not available
Check	On the PDS GUI, check if there is a new order in status eligible If the order is still eligible, check the status of the TLDaemon using the command indicated in OMM, 4.15 - service status
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, 4.15 - service start
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.4.11.2 S_NW_ING_11-B

Possible Cause	Order Generator service is not available
Check	On the PDS GUI, check if there is a new order in status eligible If there is no order, check the status of the Order Generator using the command indicated in OMM, 4.6 - service status
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, 4.6 - service start
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.4.12 S_NW_ING_12

Symptom: PV is not generated

Possible Cause	Corrupted/malformed EOP/QNO Package
Check	<p>Check the EMSAPV log files that can be found in the following:</p> <ul style="list-style-type: none"> - [x]PMAW[yy] - log in as opemsa - cd production/nnnn (nnnn being the sequential number of the order ID referenced in the PDS). <p>It is not necessary to retrieve this order ID, because the directory is deleted if the processing is successful. Therefore only the error case directories are preserved. Inside the directory there are all input and temporary files generated by the SAR processor and a log file which describes possible errors in the processing.</p> <p>The log file is in the form of LOG.nnnn</p>
Recovery	Report the problem to the SP
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.4.13 S_NW_ING_13

Symptom: PV is not generated

Possible Cause	No sufficient system resources (e.g. RAM, Disk space) on the processor machines (PMAWxx)
Check	Check if A.3 has reported an infrastructure incident
Recovery	Escalate to Contractor
Remarks	N/A

3.4.14 S_NW_ING_14

Symptom: data package (EOP, PV, OSN, DER) is in Inventory but its content is not available via GIS Viewer

Possible Cause	WebCat Feeder service not available
Check	Check the status of the service using the command indicated in OMM, 4.8 - service status
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, 4.8 - service start
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.4.15 S_NW_ING_15

Symptom: data package (EOP, PV, OSN, DER) is in Inventory but its content is not available via GIS Viewer

Possible Cause	Package corrupted/malformed.
Check	Search for errors in the WebCat Feeder log files as indicated in OMM, 4.8 - Log File
Recovery	Report to Service Provider if the package is corrupted, otherwise report to Contractor
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.4.16 S_NW_ING_16

Symptom: EOP data package is in Inventory but its content is not available via GIS Viewer

Possible Cause	VCAT-CSW service not available
Check	Check the status of the service using the command indicated in OMM, 4.21 - service status
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, § 4.21 - Service Start
Recovery Impact	Likely, after the recovery it will be necessary to re-ingest all EOP packages that were affected by this incident
Remarks	N/A

3.4.17 S_NW_ING_17

Symptom: OSN data package is in Inventory but its content is not available via GIS Viewer

Possible Cause	Deegree-WFS service not available
Check	Check the status of the service using the command indicated in OMM, 4.18 - service status
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, 4.18 - Service Start
Recovery Impact	Likely, after the recovery it will be necessary to re-ingest all QNO/DER packages that were affected by this incident
Remarks	N/A

3.4.18 S_NW_ING_18

Symptom: PV data package is in Inventory but its content is not available via GIS Viewer

Possible Cause	Geoserver not available
Check	Check the status of the service using the command indicated in OMM, 4.19 - service status
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, 4.19 - Service Start
Recovery Impact	Likely, after the recovery it will be necessary to re-ingest all PV (EOP + QNO) packages that were affected by this incident
Remarks	N/A

3.5 S_NA_GS_1

Symptom: All EO scenes or all Sar Derived (DER) items not available, but image frames visible on the GIS viewer. This occurs when the EO scene metadata and footprint can be retrieved from the database and the image frame and metadata are visible, but the raster image is not visible.

3.5.1 S_NA_GS-1-A

Possible Cause	Geoserver service not available.
Check	Verify the availability of the service as per OMM, § 4.19
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, 4.19
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	This potential unavailability of Geoserver, refers to the time when the user performs the request for data, and not to the time when the ingestion chain inserts the data. While by fixing the problem guarantees that "old" and "future" services will correctly be processed, inserted and displayed, the services which have been delivered during the incident will need to be re-ingested.

3.5.2 S_NA_GS-1-B

Possible Cause	NFS Storage repository not available. In this case, GeoServer is up but its data file storage is not available.
Check	Verify the availability of the NFS Storage (see 3.4.7.2)
Recovery	Once the NFS Storage availability is restored, restart the service using the procedure indicated in OMM, 4.19
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	while by fixing the problem guarantees that "old" and "future" services will correctly be processed, inserted and displayed, the services which have been delivered during the incident will need to be re-ingested.

3.5.3 S_NA_GS-1-C

Possible Cause	WebLogic is providing GEOServer with a wrong Java rendering library.
Check	<p>To perform the check:</p> <ul style="list-style-type: none"> open GEOServer Admin interface at: <ul style="list-style-type: none"> PRODUCTION: http://pwls10.emsa.local:7021/geoserver/web/ PRE-PRODUCTION: http://qwls09.emsa.local:7021/geoserver/web/ select menu Layer Preview select Open Layer on one of the PV images <p>If the image is correctly displayed, then the cause is not this one. Viceversa, if GEOServer prompts an error message then the WebLogic node on pwls09 needs to be restarted.</p>
Recovery	Restart the WebLogic node
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.6 S_NA_GS-2

Symptom: One specific scene not available, although the image frame is visible on the GIS Viewer.

Possible Cause	Ingestion problem (failed ingestion into Geoserver)
Check	Check if there are errors for the EOP corresponding package in the WebCat Feeder log file, see OMM 4.8
Recovery	Depends on the type of error. Typically this problem requires escalation to the contractor and/or to the service provider. As such, action is to inform C3.2
Remarks	Double check if this service was down during the ingestion: in this case, please refer to 3.4.18, as well.

3.7 S_NA_WEBLOGIC_DEF

Symptom: All EO scenes not available, but image frames visible on the GIS viewer. This occurs when the EO scene metadata and footprint can be retrieved from the database and the image frame and metadata are visible, but the raster image is not visible.

Possible Cause	No cause identified, this is a default procedure
Check	N.A.
Recovery	Restart both WebLogic nodes. First the one that failed, then the other.
Recovery Impact	To be done far from Satellite acquisitions
Remarks	N/A

3.8 S_NA_DE-1

Symptom: All Oil Spill layers not available via a WFS call

Possible Cause	WFS is not available. It may happen that some data (e.g. oil spill polygons) were successfully ingested into the system, but at a later stage, the Deegree service went down, so that it is no longer possible to retrieve the data from database WFS call.
Check	Verify the availability of the Deegree WFS service as per OMM, 4.18
Recovery	Restart the service (in case it is down) using the procedure indicated in OMM, 4.18
Remarks	Double check if this service was down during the ingestion: in this case, please refer to 3.4.17, as well.

3.9 S_NA_DE-2

Symptom: One or more oil spills not available.

Possible Cause	Item not inserted into Deegree WFS
Check	Check if there are errors for the OSN corresponding package in the WebCat Feeder log file, see OMM 4.8
Recovery	Depends on the type of error. Typically this problem requires escalation to the contractor and/or to the service provider. As such, action is to inform C3.2
Remarks	N/A

3.10 S_NA_CM

Symptom: CMPA background map is not available in the GIS Viewer or/and in an Alerting Report

3.10.1 S_NA_CM-A-1

Possible Cause	CMA cluster not available: Problems with network connectivity
Check	Verify that the map is indeed not available in the GISViewer; check network connectivity (in the firewall configuration) from pwls09/pwls10 to cmapcluster2
Recovery	Contact EMSA A3
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.10.2 S_NA_CM-A-2

Possible Cause	CMA cluster not available: Configuration Issue in CSN
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Check	<p>Verify that the map is indeed not available in the GISViewer but that the service is available by performing the following command (must be already authenticated by the SSO), by entering the following into a browser address bar:</p> <p>https://csndc.emsa.europa.eu/cmapcluster2?REQUEST=GetMap&VERSION=1.3.0&EXCEPTIONS=text/xml&LAYERS=S52%20Standard&SERVICE=WMS&WIDTH=607&HEIGHT=738&BOX=-13916641.838,18408333.124,16365670.636,18409371.333&SRS=EPSG:3395&UPSEQUENCE=DE082794-FDA6-C350-F188-F926A2AA22B7&STYLES=default&FORMAT=image/png&TRANSPARENT=TRUE</p> <p>You should see a world map image in the Browser; cmapcluster2 is the load balancer configured in the F5 and being used by CSN DC. cmapcluster2 is composed of pmap7 and pmap8</p> <p>If the world map is not displayed, according to OMM, 3.6.4 check the CMAP address.</p>
Recovery	Perform the steps detailed in OMM, 3.6.4 using the correct values and report to the contractor.
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.10.3 S_NA_CM-A-3

Possible Cause	CMAP cluster not available: Problem with cmap cluster
Check	<p>Verify that the map is indeed not available in the GISViewer but that the service is available by performing the following command (must be already authenticated by the SSO), by entering the following into a browser address bar:</p> <p>https://csndc.emsa.europa.eu/cmapcluster2?REQUEST=GetMap&VERSION=1.3.0&EXCEPTIONS=text/xml&LAYERS=S52%20Standard&SERVICE=WMS&WIDTH=607&HEIGHT=738&BOX=-13916641.838,18408333.124,16365670.636,18409371.333&SRS=EPSG:3395&UPSEQUENCE=DE082794-FDA6-C350-F188-F926A2AA22B7&STYLES=default&FORMAT=image/png&TRANSPARENT=TRUE;</p> <p>you should NOT see a world map image in the Browser point the cmapcluster2 (in the F5 configuration) to cmapcluster and disable (without deleting) the pmap7 and pmap8 from the cmapcluster2 LB configuration. If also cmapcluster fails, use qcmapcluster (PreProd cluster only to use as last resource):</p> <p>http://qcmapcluster/CMAPWMS/wms.ashx?REQUEST=GetMap&VERSION=1.3.0&EXCEPTIONS=text/xml&LAYERS=S52%20Standard&SERVICE=WMS&WIDTH=573&HEIGHT=738&BOX=13259429.713,18654194.255,15708458.511,18655232.464&SRS=EPSG:3395&UPSEQUENCE=CF6B0C12-BECE-4A23-2ED3-8299EC1DB258&STYLES=default&FORMAT=image/png&TRANSPARENT=TRUE</p>
Recovery	Contact EMSA A3
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.11 S_NA_DEM

Symptom: Background map is not available (any other but CMAP)

Possible Cause	DEMIS layer (or any other external layer used for the background map) not available
Check	<p>For DEMIS verify that the service is unavailable by entering the following URL into a web browser:</p> <p>http://www2.demis.nl/WMS/wms.asp?wms=WorldMap&TRANSPARENT=TRUE&EXCEPTIONS=text%2Fxml&UPSEQUENCE=2011%2D09%2D12T17%3A24%3A31Z&REQUEST=GetMap&SRS=EPSG%3A4326&VERSION=1%2E0%2E0&WIDTH=447&BBOX=%2D54%2E512%2C%2D90%2C54%2E512%2C90&FORMAT=image%2Fgif&LAYERS=Bathymetry%2CTopography%2CHillshading&HEIGHT=738&STYLES=default&SERVICE=WMS</p> <p>Use a similar approach for any other Map Service</p>
Recovery	N/A (in any case the DEMIS layer is only provided as a backup, while the CMAP Cluster should be the nominal layer to be used)
Remarks	Any other layer is not under control of EMSA or of the Contractor

3.12 S_NW_AIS

Symptom: AIS Ship data not available on the GIS Viewer

3.12.1 S_NW_AIS-A

Possible Cause	STIRES Harvester
Check	<p>Verify that the STIRES HARVESTER is correctly running (see OMM, § 4.9). Moreover check that the output of the command (on the PMA machine) <i>crontab -l</i> contains the following string <code>*/6 * * * * `which php` -q /var/www/html/webcat_feeder_sdfbroker_csndc/engine/launch_process.php stires > /dev/null 2>&1¹</code></p>
Recovery	Restart the service and/or verify that the service is correctly included in the crontab
Remarks	Once restarted, the service will keep on retrieving the missing data, up to 2 days after the acquisition start date.

3.12.2 S_NW_AIS-B

Possible Cause	Failure in the service operations
Check	Inspect the log files as indicated in OMM, § 4.9 and search for errors
Recovery	If possible try to fix the error, in any case report to the Contractor
Remarks	Once fixed, the STIRES Harvester will keep on retrieving the missing data, up to 2 days after the acquisition start date.

¹ Without a preceding # sign.

3.13 S_NA_SD

Symptom: User cannot upload/download data (including the POR export for coastal states)

Possible Cause	Shared temporary directory not accessible.
Check	<p>The shared directory used for uploading/downloading files from the web browser is not accessible, or does not have the right permissions.</p> <p>This directory is created on the both machines PWLS[yy] and is in the following location:</p> <p>/mnt/shared_tmp</p> <p>This must be mounted via samba and must have the following characteristics:</p> <ul style="list-style-type: none">• owner: apache• group: apache• rights: 777 <p>Verify on both nodes that the directory exists, is correctly mounted and has the appropriate characteristics</p>
Recovery	Re-establish the directory as per specifications
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.14 U_BAD_DATA

Symptom: User cannot upload data (e.g. uploading planning files from the POR, uploading alerting areas, sensitive area, etc).

Possible Cause	Data are corrupted or in the wrong format
Check	Try to upload the data yourself: the GUI will return a message indicating if the data are in the wrong format.
Recovery	Correct the data and retry.
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.15 S_NA_JM

Symptom: FinSys, JOU, Mule or QBridge components report unavailability of the JMS Queue

Possible Cause	The JMS queue is not available.
Check	<p>Using the WebLogic Administration console verify that the JMS queue is up and running and if there are pending messages. JMS queues configuration is described in OMM 5.1.7.</p> <p>Another test to perform is to use the 'Compute Budget' functionality available in the Planning List tab of the POR. Simply select one of the scenes in the Planning list by checking the corresponding box at the beginning of the line and choose 'Compute Budget' from the drop-down menu at the bottom left corner.</p>

	<p>This functionality performs a direct connection to the JMS queue and triggers the Financial System to display a graph indicating the budget available.</p> <p>If the queue is not working, an error is returned by the Financial System, stating that no information regarding the given scene is available.</p> <p>It can happen that the Planning List doesn't contain any scene: in this case, load the shopping cart provided via the 'Upload Planning Files' panel in the File Import tab of the POR.</p>
Recovery	Fix the JMS queue and restart the nodes where the JMS queue is running
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	<p>Fix and restart might be requested to EMSA A3.</p> <p>Once restarted, all pending messages will be processed.</p>

3.16 S_NA_FS

Symptom: Financial System application is not working

Possible Cause	FinSys backend is not available
Check	Use the URL indicated in OMM, §4.25 to verify the service status
Recovery	Restart the service as indicated in OMM, §4.25 and check the health status of the JMS queues as indicated in OMM, §3.3.6.
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	Once restarted, all pending messages will be processed.

3.17 U_ERR_ALERTCONFIG

Symptom: Alert not received by the user

Possible Cause	The alerting is not correctly configured
Check	<p>Verify the configuration (logged as EMSA Service Desk) using the <i>CSN-DC Web Portal->Alerting->Matrix->User Communication Matrix</i> and verify the detailed configuration for the users who did not receive the alert as expected. In particular the following shall be checked:</p> <ul style="list-style-type: none"> • Alert level • Alert channel • Alert e-mail • Alert SMS • Alert MMS
Recovery	Correct the configuration
Remarks	Please note that the same user can be assigned to multiple cases of alerting, including both the alert level (red/yellow/green) and the communication channel (e-mail, sms, mms).

3.18 U_ERR_ALERTAREA

Symptom: Alert not received by the user

Possible Cause	User error (the alerting area of the user is not correctly defined, or is not as the users expects it to be)
Check	This can be simply verified by accessing the GIS viewer and click on the button <i>Show alerting regions</i> available in the Search panel. It could be possible that: <ul style="list-style-type: none"> • The alerting region for a given Coastal State was not defined • The alerting region for a given Coastal State was defined differently from what the coastal state expects (e.g. a smaller area, wrong coordinates, etc.)
Recovery	Correct the alerting area (see Alerting User Manual)
Remarks	N/A

3.19 S_NW_ALERT

Symptom: Alert not received by the user

Check the troubleshooting diagram (4.2) in order to quickly address the problem.

The following components are involved in the alerting:

1. EMSA Pre-inventory
2. FOP Report Manager
3. Report Generator
4. Alerting Emailer
5. EMSA mail server

3.19.1 S_NW_ALERT_1

Problem with EMSA Pre-inventory (see S_NW_ING_1 to S_NW_ING_6 and OMM §4.4)

3.19.2 S_NW_ALERT_FOP

Symptom: Alert is not received by the user and not visible in the Alerting – Admin interface

Possible Cause	FOP Report Manager is having problem generating the report: maybe a bug or some other inconsistencies in the OSW/OSN packages.
Check	Check the FOP log file for possible errors (see OMM §4.13).
Recovery	If the cause of the error cannot be easily fixed, escalate to the Contractor.
Recovery Impact	To be done far from Satellite acquisitions
Remarks	Likely, after the recovery, it will be necessary to re-ingest the OSN/OSW packages that were affected by this problem

3.19.3 S_NW_ALERT_REP

Symptom: Alert not received by the user and not visible in the Alerting – Admin interface

Possible Cause	The Report Generator is not available or cannot generate the alert report
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	properly.
Check	Two checks must be done: <ul style="list-style-type: none"> • Check the FOP log file for possible errors (see OMM §4.13): it could happen that the FOP cannot contact the Report Generator. • Check the Report Generator log file for possible errors (see OMM §4.17).
Recovery	If the problem is the unavailability of the Report Manager, try to restart it using the WebLogic console. If the problem is due to a bug, escalate to the Contractor.
Recovery Impact	To be done far from Satellite acquisitions
Remarks	Likely, after the recovery, it will be necessary to re-ingest the OSN/OSW packages that were affected by this problem

3.19.4 S_NW_ALERT_EMAILER

Symptom: Alert visible in the Alerting-Admin interface but not received by the user

Possible Cause	The Alert Emailer service is down
Check	Verify that the Alerting Emailer is correctly running (see OMM §4.32)
Recovery	The Alerting Emailer is executed by the crontab and therefore it shall be checked with the command <code>crontab -l</code> , to be executed on the pwls[yy] machines and shall return a string like the following: <pre>*/1 * * * * export HOSTNAME=\$(hostname); php -q /var/www/html/emsa_csn_scheduler/engine/ecs_main_engine.php alert > /dev/null</pre> <p>If not, the service shall be reintroduced into the crontab. It is also necessary to verify that the cron daemon (crond) is running correctly, by issuing the command <code>service crond status</code>.</p>
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	

3.19.5 S_NW_ALERT_EMAIL_SERVER

Symptom: Alert visible in the Alerting-Admin interface but not received by the user

Possible Cause	EMSA Email Server is not reachable or down
Check	Check the Alert Emailer log file (see OMM §4.32) for failure to contact the email server or check in the Alerts grid of the Alerting – Admin interface for the Error column or 'Show Delivery Status' popup for the given alert.
Recovery	Contact EMSA A3)
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	Likely, after the recovery, it will be necessary to re-ingest the OSN/OSW packages that were affected by this problem

3.19.6 S_NW_ALERT_HANGING

Symptom: Alert visible in the Alerting-Admin interface but not received by the user. List of user recipients (e.g. Alert Admin->list alerts->click on show delivery status, is empty.

Possible Cause	<i>emsa_csn_scheduler</i> is hanging
Check	<p>Verify if the process <i>emsa_csn_scheduler</i> is already running in any of the [x]WLS[yy], by performing the following commands (as <i>opemsa</i>):</p> <pre>ps -ef grep -i emsa_csn_scheduler</pre> <p>NOTE: this process normally takes few seconds, thus, if it is running for more than a few seconds, probably it is stuck. Killing it at any time would never harm because it is automatically re-run by the cron job.</p>
Recovery	Kill the process that is hanging.
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	It has happened in the past, very rarely (e.g. once a year) that the process <i>emsa_csn_scheduler</i> hangs for some reasons due to database deadlocks. This process is implemented as a singleton, so while the crontab tries to launch it again, it will find an existing process and will exist without performing any action.

3.20 S_SM_ALERT

Symptom: Alert not received by the user

Possible Cause	Alert is in simulation mode
Check	<p>On BOTH [x]WLS[yy] open <i>/var/www/html/emsa_csn_scheduler/config/ecs.ini</i> and verify the following line (in the [ecs_alert_1] section) :</p> <pre>mode = Simulation</pre> <p>Simulated messages will be sent to: <i>csndc-test-alert@emsa.europa.eu</i> => all emails normally sent to EMSA Users <i>Samuel.DJAVIDNIA@emsa.europa.eu</i> => all emails normally sent to MSS Operators</p> <p>When the Alert mode is in Simulation, the Alert Emitter logs every minute the following message 'Alert will be simulated'. Hence, to verify if the simulation is turned off, check in the log file if this message is not logged anymore.</p>
Recovery	To restore the alert to normal operating mode, change the <i>ecs.ini</i> file setting <code>mode= On</code>
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	Likely, after the recovery, it will be necessary to re-ingest the OSN/OSW packages that were affected by this problem

3.21 S_SM_ALERT_OFF

Symptom: Alert not received by the user

Possible Cause	Alert is manually turned off
Check	to check if the alert is turned off you have to open the file /usr/acs/config/pdsPreInventory.ini on xpmas0y and see if the " report_manager = "php /var/www/html/fop_report_manager/engine/report_manager.php" is commented (the row starts with ";")
Recovery	To restore the alert to normal operating mode, in case it is turned off, the comment has to be removed
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	Likely, after the recovery, it will be necessary to re-ingest the OSN/OSW packages that were affected by this problem

3.22 S_SM_ALERT_DEBUG

Symptom: Alert not received by the user, not available in the admin interface and not written into the database

Possible Cause	Alert is in debug mode
Check	On xPMASyy on the folder /var/www/html/fop_report_manager/config/ check the any of the following files: report_manager.ini ext_report_manager.ini dbg_report_manager.ini has the following string [report_manager] debug = On Note: it does matter if the debug=on string is under the [report_manager] section.
Recovery	Change the string to the following [report_manager] debug = Off
Recovery Impact	
Remarks	Likely, after the recovery, it will be necessary to re-ingest the OSN/OSW packages that were affected by this problem

3.23 S_NA_QFS

Symptom: Financial System is not updating with new orders/scenes

Possible Cause	FinSys JMS Queue connection problem
Check	Using the Weblogic Administration console, check if there are consumers connected to the Financial System queue. There should be as many as there are running nodes.
Recovery	Restart the Financial System component (OMM, 4.25)
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	Once restarted, all pending messages will be processed.

3.24 S_NA_QJOU

Symptom: JOU is not updating correctly

Possible Cause	The connection to the JMS queue has been lost.
Check	Using the Weblogic Administration console, check if there are consumers connected to the JOU queue. There should be as many as there are running nodes.
Recovery	Restart the JOU component (OMM, 4.22)
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	Once restarted, all pending messages will be processed.

3.25 U_BAD_MD5

Symptom: Service Provider reports problems with SOAP MD5 service for CleanSeaNet-DC transfers

Possible Cause	SP is making a wrong md5 soap call
Check	Check if external SOAP/MD5 getCapability URL is valid and returns an xml file. External URL: https://csndc.emsa.europa.eu:444/javabridge/acs/csn_hash_server.php?wsdl=1
Recovery	Contact SP and ask for error message informing them that the MD5 service is available at EMSA
Recovery Impact	None
Remarks	N/A

3.26 S_NA_MD5

Symptom: Service Provider report unavailability of MD5 service or JOU is not updating correctly

3.26.1 S_NA_MD5-A

Possible Cause	MD5 service is down or malfunctioning
Check	Check if the internal SOAP/MD5 getCapability URL returns a valid XML file: Internal URL : http://pcsn:7021/javabridge/acs/csn_hash_server.php?wsdl=1 If not, check the MD5 service status and its log (OMM, 4.33)
Recovery	Restart the MD5 service or report the error to the Contractor
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	N/A

3.26.2 S_NA_MD5-B

Possible Cause	Network connection problem
Check	Check if the external SOAP/MD5 is reachable by requesting a getCapability command at the following External URL:

	https://csndc.emsa.europa.eu:444/javabridge/acs/csn_hash_server.php?wsdl=1 If not, there might be a network connection problem at EMSA infrastructure level (it is assumed that S_NA_MD5-A check was ok)
Recovery	Contact A3 to investigate
Remarks	N/A

3.27 S_NA_CONN

Symptom: Service Provider reports problems in connecting to CleanSeaNet-DC

External ftp service not accessible	External ftp service not accessible
Check	Check accessibility of the FTP machine, using an FTP client, with credentials available in the following file: /usr/acs/conf/acs_global_config.ini on the ppmas01 machine
Recovery	Contact A3 to investigate
Remarks	N/A

3.28 S_NA_MU

Symptom: JOU is not updating correctly

Possible Cause	The MULE service that notifies the JOU about file ingestions is unavailable
Check	Check if the MULE service is running (OMM, 4.7)
Recovery	Restart the MULE service (OMM, 4.7)
Recovery Impact	Recovery can be done at any time, regardless of the arrival of new packages.
Remarks	Once restarted, all pending messages will be processed.

3.29 S_DD_ING

Symptom: More than one entry is available in the GISViewer for the same scene ID

Possible Cause	Double delivery of package by Service Provider
Check	In the GIS Viewer, add the hidden ID column in the result grid and check the value (it is the EO Product Name) for both rows. If the value is different (sometimes the difference is subtle, maybe only one character), this means that the Service Provider has sent two different packages with the same Scene ID (Scene ID is the number at the beginning of the EO Product Name value).
Recovery	Inform C3.2 and the Service Provider. Remove the wrong package using the procedure in OMM 3.5.3 specifying the EO Product Name.
Recovery Impact	Any additional information associated to the removed product will be lost (e.g. Feedback).
Remarks	Specify the EO Product Name

3.30 S_DOUBLE_STATUS

Symptom: More than one entry is available in the GISViewer for the same Scene ID

Possible Cause	Double Status
Check	In the GIS Viewer, add the hidden ID column in the result grid and check the value (it is the EO Product Name) for both rows. If the value is identical (sometimes the difference is subtle, maybe only one character), this means that this is a bug to be reported.
Recovery	Inform C3.2 and the Service Provider
Recovery Impact	
Remarks	This is clearly a bug in the system

3.31 S_NA_CSNSERVER

Symptom: In weblogic console, state of server is different from “RUNNING”

Possible Cause	CSNServer is down
Check	In weblogic the state of the server is different from RUNNING.
Recovery	Restart the server that failed and then the other server, in order to force the JMS Queue synchronisation
Recovery Impact	To be done far from Satellite acquisitions
Remarks	Due to a known bug in weblogic, the JMS Queue is often not synchronized correctly after a csnsServer failure and starts sending errors to log files csnsServer.log and/or csnsServer.out

3.32 S_BAD_ARCHIVE

Symptom: after archiving data, the table X_OIRDER_DETAILS_ARCHIVE reports a status different than 1. See [TDD] section 5.11.3 for general analysis of the various non-nominal cases and for the description of the various statuses in this table. In this document, the main possible anomalies are reported along with possible recovery actions. As explained in that document, the column notes of the above database table provides a first hint about what is the type of problem. Further information can be found in the log file (see [OMM] for log files location and naming).

3.32.1 S_BAD_AIS_ARCHIVE

Symptom: corresponding AIS data for a given package where not migrated into the AIS archive table.

Possible Cause	AIS data not available in the original database table for that particular package. Write error on destination (e.g. network connection problem, tablespace full, etc.). Write error due to constraints violation.
Check	Inspect the archive log files.
Recovery	Contact the DBA

Recovery Impact	Since this is typically performed for old data to be archived there should be no impact on the current nominal operations.
Remarks	It may happen that AIS data are not available for a given package, for example because of a problem during the ingestion. If it is possible to reconstruct this situation (easily done by inspecting the archiving log files), there is no action to perform.

3.32.2 S_BAD_FILE_TRANSFER

Symptom: files are not physically moved.

Possible Cause	Files not available at the source. Error writing files to the destination location.
Check	Inspect the archive log files.
Recovery	If files are missing at the source there is no action to perform. If there was a failure in writing files in the destination, this shall be checked with the operation system maintenance team, as it could be due to lack of disk space, write permission errors, etc.
Recovery Impact	Since this is typically performed for old data to be archived there should be no impact on the current nominal operations.
Remarks	The condition where a certain file is missing at the source is not unlikely, because the archiving system makes some assumptions on the type of files to be migrated and in some cases, even if a file was part of the standard file types, for some reason was not originally part of the files ingested in the system. Moreover a file may be missing at the source if it was lost for other reasons, e.g. accidentally deleted, was lost into a system crash, etc.

3.32.3 S_BAD_GEOSERVER_UPDATE

Possible Cause	Error removing a layer in geoserver, because the layer did not exist. Error with geoserver credentials.
Check	Inspect the archive log files.
Recovery	If the file for some reason did not exist in geoserver, while it was expected this could be related to some error incurred during the ingestion process. Assuming the ingestion process might have been carried out long before the archiving (years before), in some cases it could be difficult to trace this. If the geoserver layer removal is failing because of wrong credentials, this can be easily fixed by updating the credentials in the Archiving configuration file (see [OMM] acs_global_config.ini).
Recovery Impact	Since this is typically performed for old data to be archived there should be no impact on the current nominal operations.
Remarks	A file may be missing in geoserver because of a failure in the ingestion.

3.33 S_BAD_RESTORE

Symptom: after archiving data, the table X_OIRDER_DETAILS_ARCHIVE reports a status different than 3. See [TDD] section 5.11.3 for general analysis of the various non-nominal cases and for the

description of the various statuses in this table. In this document, the main possible anomalies are reported along with possible recovery actions. As explained in that document, the column notes of the above database table provides a first hint about what is the type of problem. Further information can be found in the log file (see [OMM] for log files location and naming).

3.33.1 S_BAD_AIS_RESTORE

Symptom: corresponding AIS data for a given package where not restored from the AIS archive table.

Possible Cause	AIS data not available in the original database table for that particular package. Write error on destination (e.g. network connection problem, tablespace full, etc.). Write error due to constraints violation.
Check	Inspect the archive log files.
Recovery	Contact the DBA
Recovery Impact	Since this is typically performed for old archived data there should be no impact on the current nominal operations.
Remarks	It may happen that AIS data are not available for a given package, for example because of a problem during the ingestion. If it is possible to reconstruct this situation (easily done by inspecting the archiving log files), there is no action to perform.

3.33.2 S_BAD_FILE_TRANSFER

Symptom: files are not physically moved.

Possible Cause	Files not available at the source, or error previously occurred during archiving. Error writing files to the destination location.
Check	Inspect the archive log files.
Recovery	If files are missing at the source there is no action to perform. If there was a failure in writing files in the destination, this shall be checked with the operation system maintenance team, as it could be due to lack of disk space, write permission errors, etc.
Recovery Impact	Since this is typically performed for old data to be archived there should be no impact on the current nominal operations.
Remarks	The condition where a certain file is missing at the source is not unlikely, because the archiving system makes some assumptions on the type of files to be migrated and in some cases, even if a file was part of the standard file types, for some reason was not originally part of the files ingested in the system. Moreover a file may be missing at the source if it was lost for other reasons, e.g. accidentally deleted, was lost into a system crash, etc.

3.33.3 S_BAD_GEOSERVER_UPDATE

Possible Cause	Error restoring a layer in geoserver, because the corresponding file (e.g. the TIFF to be restored) was not found or was corrupted. Error with geoserver credentials.
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Check	Inspect the archive log files.
Recovery	<p>If the file for some reason did not exist in geoserver, while it was expected this could be related to some error incurred during the ingestion process. Assuming the ingestion process might have been carried out long before the archiving (years before), in some cases it could be difficult to trace this.</p> <p>If the geoserver layer restore is failing because of wrong credentials, this can be easily fixed by updating the credentials in the Archiving configuration file (see [OMM] acs_global_config.ini).</p>
Recovery Impact	Since this is typically performed for old data to be archived there should be no impact on the current nominal operations.
Remarks	A file may be missing in geoserver because of a failure in the ingestion.

3.34 S_NA_NOTIFICATION

Possible Cause	Wrong configuration of the service end point or service switched off.
Check	No notification received at the expected end point.
Recovery	Verify the log file setting as indicated in [OMM], section 4.8.
Recovery Impact	None.
Remarks	N/A.

4 Troubleshooting Charts

4.1 Ingestion

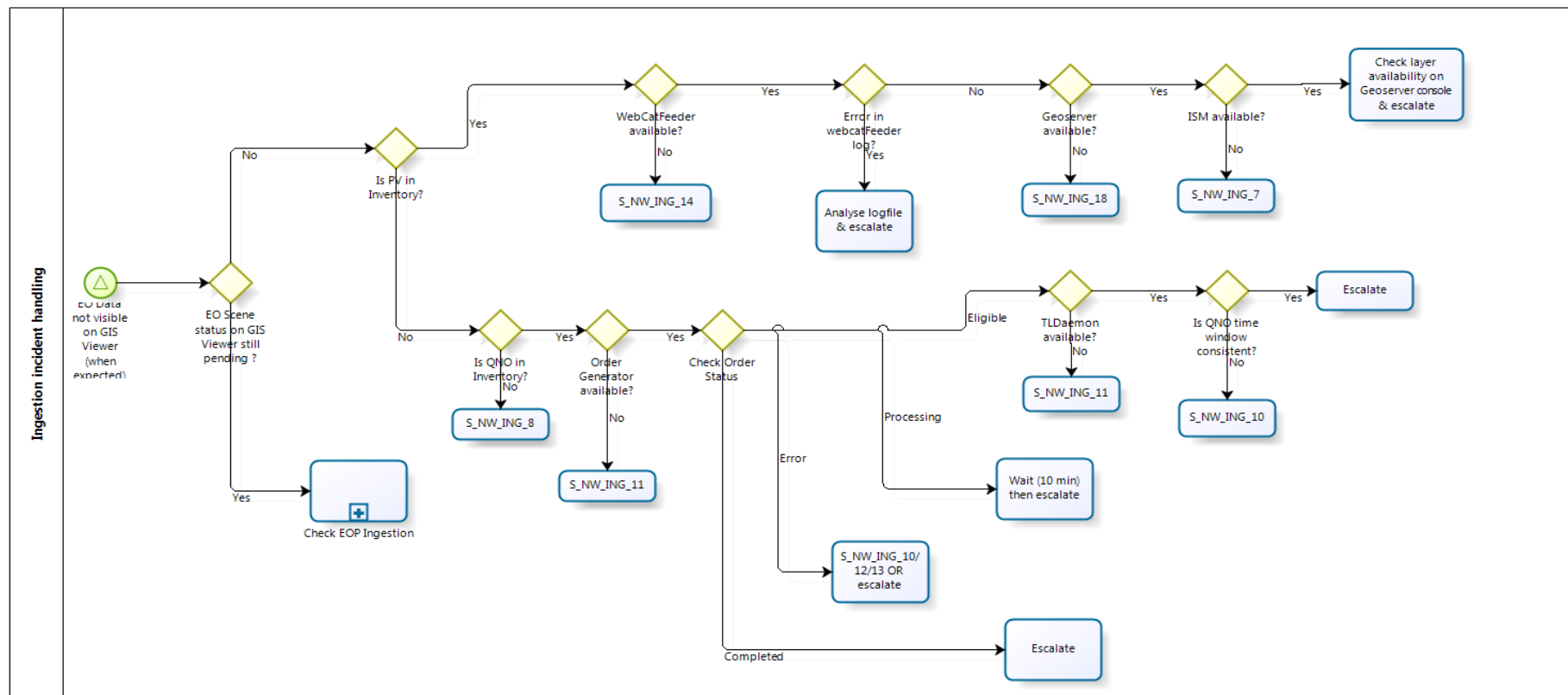


Figure 4-1 Ingestion incident handling (main diagram)

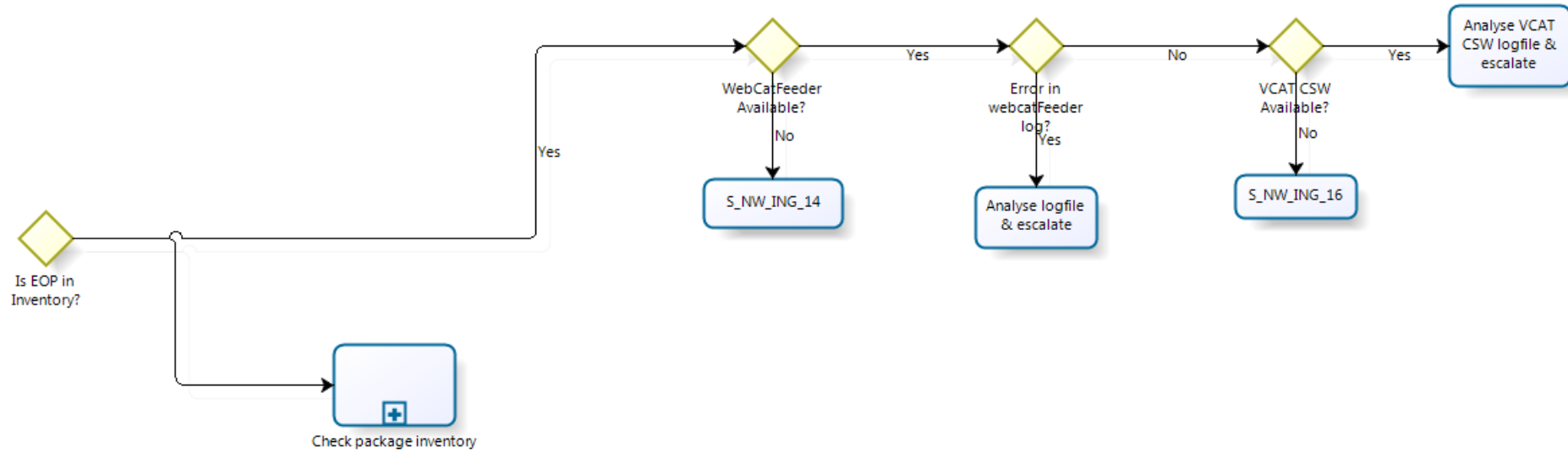


Figure 4-2 Check EOP ingestion

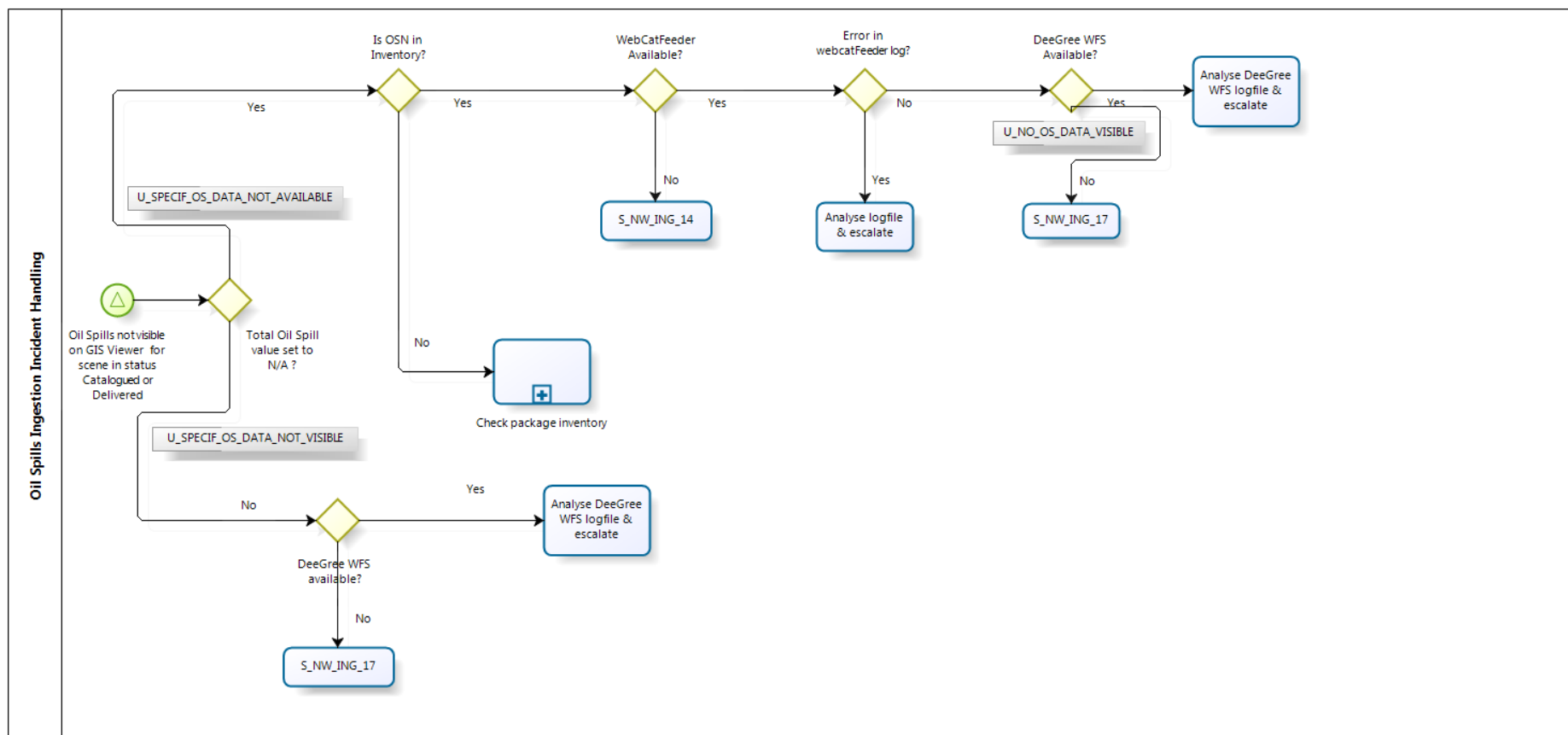


Figure 4-3 Check OS Ingestion

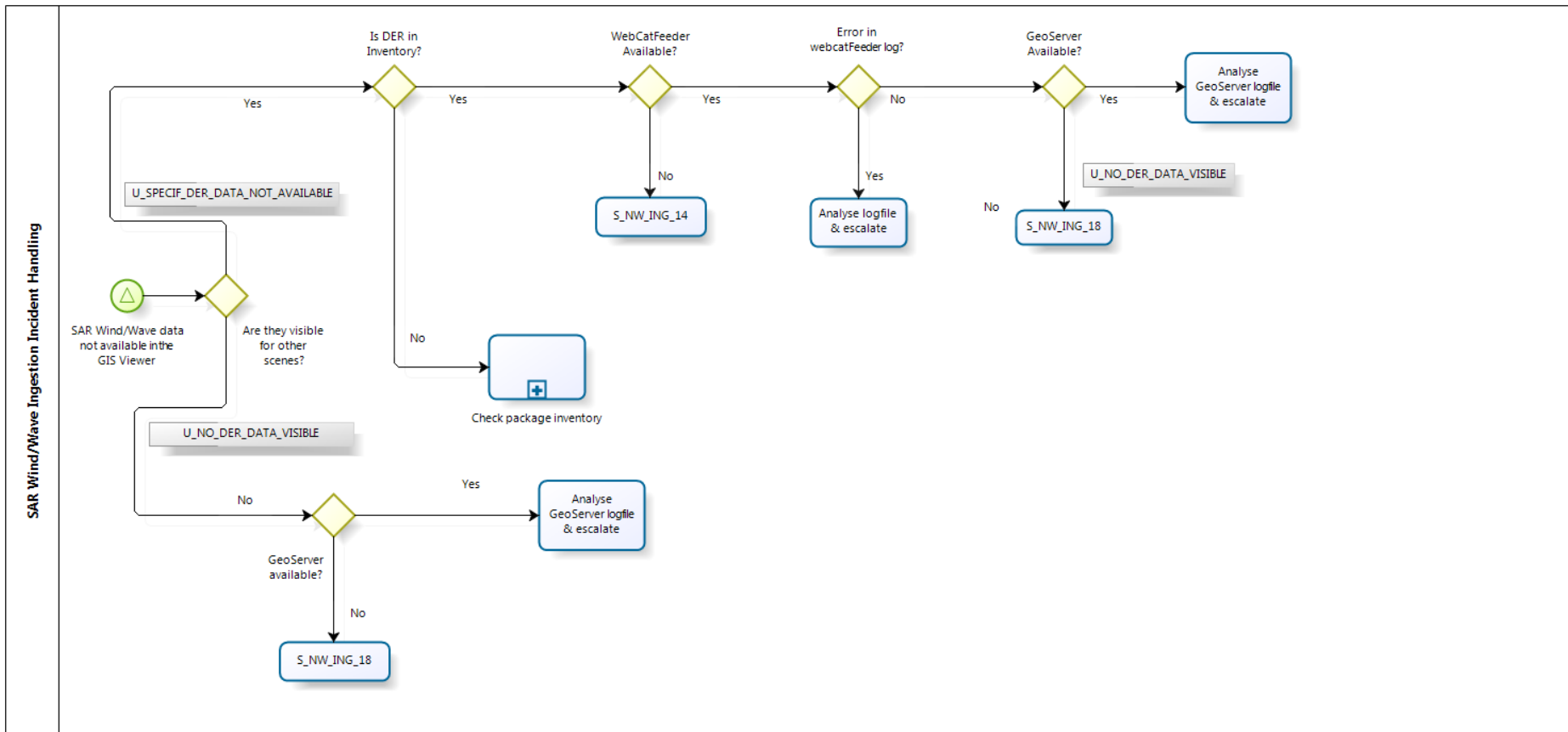


Figure 4-4 Check DER Ingestion

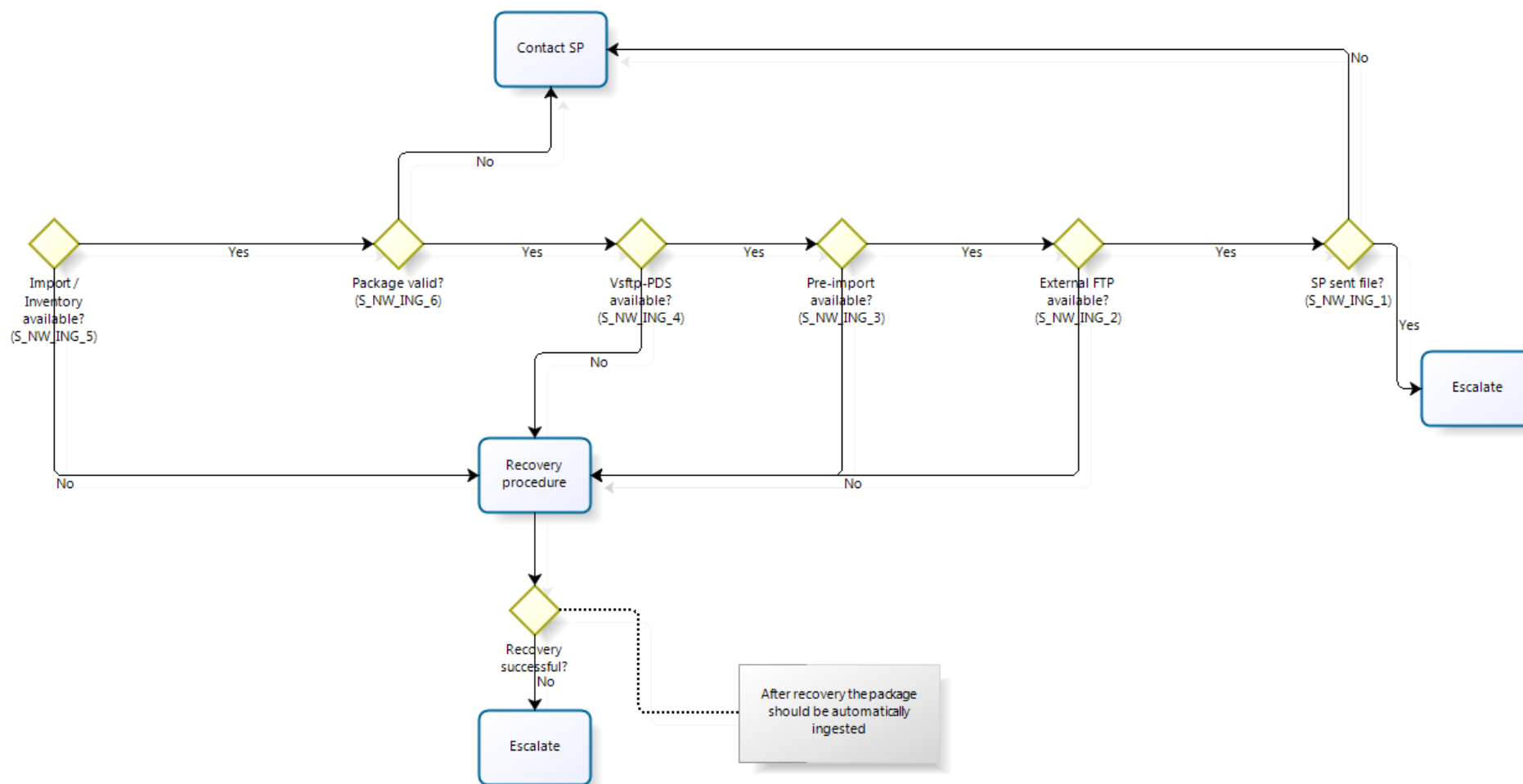


Figure 4-5 Check package inventory

4.2 Alerting

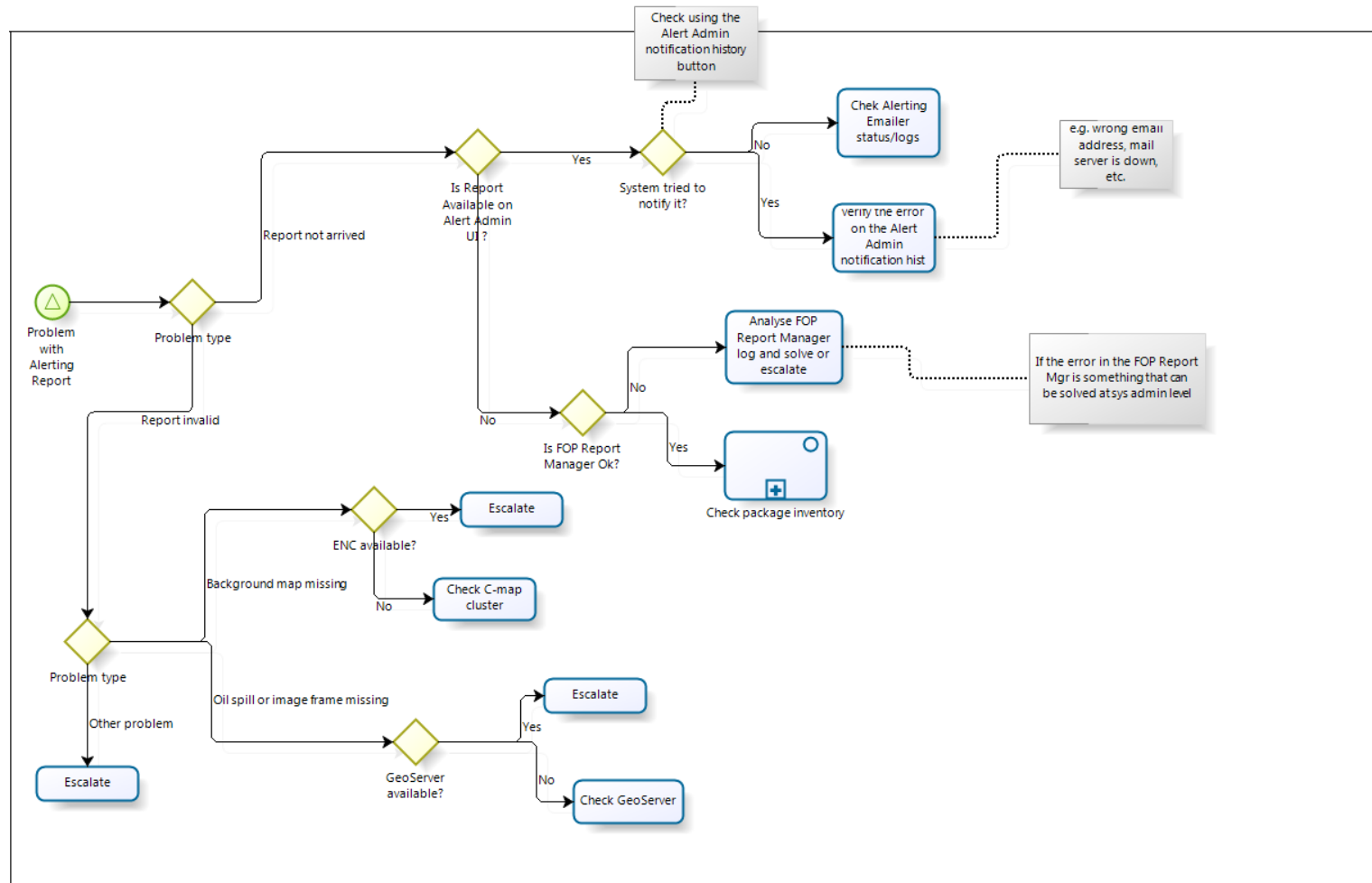


Figure 4-6 Alerting incident handling

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