

**CleanSeaNet**

**Data Centre**

**[CSNDC]**

**Operational Maintenance Manual (OMM)**

Insert reference or version 2.1

**Date: 29/05/2015**



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## GENERAL INFORMATION

# 1 GENERAL INFORMATION

## 1.1 System Overview

### 1.1.1 Major functions performed by the system

CleanSeaNet offers all EU Member States, Candidate countries and EFTA Coastal States (hereafter referred to as Coastal States) a near real time (NRT) marine oil spill detection service using radar satellite imagery acquired by the ENVISAT, ERS-2 and RADARSAT 1 & 2 SAR satellites. The service is free of charge to all Coastal States and it covers all European waters, except those of overseas territories.

In the case of a detected oil slick, an alert is delivered to the relevant Coastal State operational contact point responsible for monitoring of ship sourced pollution at national level. The alert message can be transmitted via a phone call, an Email, a FAX or an SMS/MMS, depending on which alert means the Coastal State has defined.

The CSN Data Centre is the central element for data:

- Reception
- Management
- Storage
- Archiving
- Fusion
- Dissemination to the different users

The CSN DC objective is to provide users in the CS with a comprehensive and tailored service, a so called “one stop shop”, which provides all necessary information for the national decision making process for pollution response and follow up activities.

### 1.1.2 Overall architecture of the system

The architecture foreseen for the CSN-DC match the EMSA needs to have a system based on the state-of-the-art technologies, having a SOA architecture (where applicable), as derived from previous Projects such as the “data driven” PDS for the ESA Earth Explorer, the User Service Next Generation for ESA and the EUSC Reference Facility Project where workflows were integrated for similar applications.

It is indeed also important to mention that the architecture, derived by the above main Projects, is especially set for Near Real Time systems i.e. systems requiring a very small “latency” in the system infrastructure. This is particularly true for the PDS, which is a well consolidated ACS infrastructure implemented in many ground segments with different configurations of the same COTS.

Due to the fact that the reused SW has been designed for scientific missions, the overall SW and HW architecture is highly scalable, easily tuneable for current and future Operational needs.

Moreover the driving architectural choice to have facilities and components which are independent each other shall be of value adding in the moment EMSA would decide to add new functionalities to its existing specified requirements.

### 1.1.3 User access mode

Several entry points exist for different users:

Interface	Description	Users
Web User Portal	Web User Portal. The main interface for internal and external users. It is deployed in the corporate Liferay portal	Internal and external
	Environment      URL	
	Production <a href="https://csndc.emsa.europa.eu">https://csndc.emsa.europa.eu</a> PreProd <a href="https://csndc-pp.emsa.europa.eu">https://csndc-pp.emsa.europa.eu</a>	
PDS	Internal interface used to configure and monitor the PDS catalogue	EMSA System Administrators
	Environment      URL	
	Production <a href="https://ppmas01">https://ppmas01</a> PreProd <a href="https://qpmas02">https://qpmas02</a>	
Oracle Identity Management Suite	User management (provisioning/deprovisioning). Corporate application.	Internal and external.

## 1.2 Project References

Document Title	Identifier	Internal Reference
Invitation to Tender concerning the development of "EMSA CleanSeaNet Data Centre"	EMSA/OP/06/2009	[ITT]
Tender Specifications	Enclosure I	[E-I]
Draft Framework Contract	Enclosure II	[E-II]
Price Grid	Enclosure III	[E-III]
Compliance Matrix	Enclosure IV	[E-IV]
ICT Architecture, System and application Technical Landscape	Enclosure V	[E-V]
Project delivery	Enclosure VI	[E-VI]
Working procedures and service requirements	Enclosure VII	[E-VII]
Functional Design Document, issue 2.0 8/01/2010	CSNDC-DD-ACS-EMSA-0101	[FDD]
Technical Design Document, issue 7.0 10/04/2015	CSNDC-DD-ACS-EMSA-0102	[TDD]
Generic Processor ICD, issue 1.0, 09/12/2009	CSNDC-TN-ACS-EMSA-0103	[ID1]
User Manual Product Ordering - 14/06/2011	POR Online Help	[PUG]
External Interface Control Document, issue 1.0 09/01/2010	CSNDC-ID-ACS-EMSA-0104	[EICD]
User Guide, issue 1.0 Vol2 Product Ordering, issue 1.0, 26/02/2010	CSNDC-ID-ACS-EMSA-0105	[SUM-2]
User Guide, issue 1.0 Vol3 WUP Core, issue 1.0, 28/02/2010	CSNDC-ID-ACS-EMSA-0105	[SUM-3]

Document Title	Identifier	Internal Reference
User Guide, issue 1.0 Vol4 PDS, issue 1.0, 26/02/2010	CSNDC-ID-ACS-EMSA-0105	[SUM-4]
Release Notes, issue 1.0, 23/03/2010	CSNDC-ID-ACS-EMSA-0108	[REN]
ACS Quality Guidelines for HMI Design, issue 3.2 17/07/2009	SW-PA-ACS-QA-0103	[HMI-GL]
PDS Ingestion Geoserver Catalogue Operation (technical note prepared by EMSA)	Filename: <i>pds-ingestion-geoserver-catalogue-operations-sdj-20110520.doc</i>  Dated: 20110520	[PDS-ING]
CSN V2 MSS Procedures (technical note prepared by EMSA)	Filename: <i>STANDING ORDER 24-05-2011.doc</i>  Dated: 20110524	[MSS-PROC]

## 1.3 Operational Workflow and Organizations

### 1.3.1 Operational Workflow

### 1.3.2 Organizations

Provide a list of organizations that require coordination between the project and its specific support function (e.g., installation coordination, security, etc.).

## 1.4 Organization of the Manual

The document is organised as follows.

Section	Description
General Information	This section.
System Description	The section provides a description of the system, subsystems, and communications, in terms of their overall relationships. Presents a discussion of the security consideration associated with the system
Environment	The section defines the general characteristics of the system.
System Maintenance Procedures	The section provides information about the specific procedures necessary for the programmer to maintain the collective software units that make up the system.
System Unit Maintenance Procedure	The section provides a detailed description of maintenance parameters for each System unit
Application Server Maintenance Procedures	The section provides the information necessary to maintain the Application Servers of the system.
Database Maintenance Procedures	The section provides the information necessary to maintain the Databases of the system.
Other Systems	The section provides information about other systems and components.

Troubleshooting Check List	Enter information on the different systematic check to troubleshoot system problems.
----------------------------	--

## 1.5 Acronyms and Abbreviations

Abbreviation	Definition
COM	Communication components
CSN-DC	Clean Sea Net Data Centre
DAM	Data Management
DGF	Data Gate Facilities
EO	Earth Observation
GUI	Graphical User Interface
HMA	Heterogeneous Mission Accessibility
ICD	Interface Control Document
IF	Interface
IIF	Ingestion Interface
IPF	Instrument Processing Facility
ISM	Independent Storage Manager
JOU	Journaling
PMA	Process Manager
PDE	Product Delivery
PDS	Payload Data Segment
POR	Product Ordering
SAR	Synthetic Aperture Radar
SDF	Support Data Facility
SO	Satellite Operators
SP	Service Providers
SYS	System monitoring
UI	User Interface
UMA	User Management
WUP	Web User Portal

## SYSTEM DESCRIPTION

## ENVIRONMENT

## 2 ENVIRONMENT

The system is installed in three different environments:

- Test
- Pre Production
- Production

They are meant indeed to be used with slightly different purposes in the different project phases and have also a throughput limit with respect to the Production environment set to 50% for the Pre Production and 25% for the Test/Development one.

### 2.1 System Architecture

In the Annex A two diagrams are describing the system deployment.

### 2.2 Equipment Environment

Name	CPU	RAM	Avail	Storage	OS + middleware
[x]PMAS[yy]	2 VCPU	8GB	VHC	100 GB	Linux RedHat
[x]MAW[yy]	2VCPU	4GB	MNLC	100 GB	Linux RedHat
[x]WGT[yy]	4VCPU	16GB	VHC	200GB	Linux RedHat Weblogic Server Liferay
[x]WLS[yy]	4VCPU	16GB	VHC	200GB	Linux WebLogic Server
[x]MS[yy]			VHC	3,5 TB/year for the mass storage	NFS Appliance

### 2.3 Storage Requirements

The following table gives a picture of the estimated data volume<sup>1</sup>:

Data Type	Repository	MB/Day	GB/year
AIS data	WebCat Feature DB	14,65	5,22
SAR	ISM file system	7.500,00	2.670,73
SAR metadata	WebCat Ebrim DB	0,07	0,03
SAR Radiometric Corrected	ISM file system	750,00	267,07
Oil spill Warnings (tar)	ISM file system	15,00	5,34
Oil spill Warnings (metadata)	WebCat Feature DB	15,00	5,34
Oil Spill Notifications (tar)	ISM file system	15,00	5,34

<sup>1</sup> This table is intended for production only as for the other two environments it doesn't make sense

Oil Spill Notifications (metadata)	WebCat Feature DB	15,00	5,34
SAR wind and wave/swell (tar)	ISM file system	0,60	0,21
SAR wind and wave/swell (metadata)	WebCat Feature DB	0,60	0,21
SAR Vessel Detection (tar)	ISM file system	0,15	0,05
SAR Vessel Detection (metadata)	WebCat Feature DB	0,15	0,05
SAR Image Quality Notifications	ISM file system	0,15	0,05
Quality Reports	ISM file system	15,00	5,34
MyOcean data	ISM file system	1.000,00	356,10
MD5 sub package data	ISM file system	0,15	0,05
External Process data (tar)	ISM file system	100,00	35,61
External Process data (metadata)	WebCat Feature DB	100,00	35,61
Region of interests	POR DB	1,00	0,36
Feasibility Planning	POR DB	0,10	0,04
Acquisition Status Files	POR DB	0,10	0,04
External catalogues	ISM file system	1,00	0,36
COM data	Liferay DB	38,00	14,00
JOU data	JOU DB	13	4,7
<b>TOT</b>		<b>1372.5</b>	<b>1299.67</b>

## 2.4 Software inventory

All software installed is provided as a set of RPM packages in order to have a common way to check the version of every component. The next two section will provide the information regarding:

- A tool to automatically check the RPMs versions across different environments
- The list of all installed components

### 2.4.1 RPM Sync Tool

A special bespoke RPM Sync Tool is provided in order to:

- Verify that machines of the same cluster in the same environment (such as PWLS09 vs. PWLS10) are identical.
- Verify that same machines on different environments (such as PWLS09 vs. QWLS09) are identical
- Verify that two different groups (such as WLS vs. MAS) have the same RPMs

The RPM Sync Tool is deployed on all environments and is contained in the "emsa\_support\_file" rpm package.

It is important to note that this tool checks only differences between RPMs versions (and not other files), displaying, for each machine, the list of different RPMs is provided. An example can help to better clarify how to read the output of the script.

Suppose that on PWLS09 there is version 5.48 of ACSPHLib, while on PWLS10 there is version 5.50: the output of the command will state that:

- PWLS09 is missing package ACSPHPLib-5.50-0\_nocrypt.noarch.rpm (that is the one installed on PWLS10)
- PWLS10 is missing package ACSPHPLib-5.48-0\_nocrypt.noarch.rpm (that is the one installed on PWLS09)

This means that ONLY PWLS09 must be updated, as it has a RPM with a lower version.

Another important remark regards the check between two different groups of machines. In fact, as these machines will have many different components, there will be many RPMs missing on both sides. This means that only those RPMs that are in common must be taken into account, according to table in section 0.

This tool (*check\_rpm\_sync.php*) and its configuration file (*check\_rpm\_sync.ini*) can be found on any WLS machine under the path */var/www/html/emsa\_support\_files/installation*.

The configuration file allows you to decide which machines have to be checked.

Every section (defined by the **[environment]** tag) is similar to:

```
[prod-sys]
wls=pwls09,pwls10
mas=ppmas01
maw=ppmaw01,ppmaw02
ms=pms01
```

Hence, [prod-sys] is the environment containing a key-value list of types (such as wls, mas, etc.) and comma-separated machines (pwls09,pwls10).

To use the tool, change to its directory (*/var/www/html/emsa\_support\_files/installation*) and launch the command:

```
php check_rpm_sync.php <command>
```

where<command> can be one of the following:

- *showSync <group>*
- *dumpToFile <group>*
- *showSyncWithFile <group><syncFile>*

To get the help, use the --help, -help, -h, or -? options.

To check the configuration of one environment (for example "preprod"), type

```
php check_rpm_sync.php showSync preprod
```

The check can also be performed between two different environments. However, as there is no communication among the environments, the user has to:

1. Dump the configuration of environment A (for example "prod") on a file.  
Type: *check\_rpm\_sync dumpToFile prod*  
a. The script will print the filename that has been produced (for example */tmp/prod.rpm.sync*).
2. Copy this file on a WLS machine of the other environment (for example qwls09 on "preprod")
3. Launch the cross check. Type:

a. *check\_rpm\_sync showSyncWithFile preprod /tmp/prod.rpm.sync*

In this case we expect:

- All machines belonging to the same group on all environments (that is, all WLS, all MAS, etc.) to be aligned
- All RPMs in common among groups to be identical. This is trickier as only the RPMs that are in common are to be considered, according to section 0.

Finally, the file produced at point 1) is the full RPM inventory of the entire target environment. Producing this file after each installation and versioning it is good practice as it allows checking the differences between installations.

## 2.4.2 RPMs List

The following is the list of all the RPMs that are needed on each machine, apart from those that are set by the Linux installation kit.

Source code is provided for all RPMs highlighted in bold.

Machine	Component	Sub Component	Package Name
xPMASxx /tmp/pmas_rpm_list.txt SibillaWebSite_ISM_EMSA	WebCat		webcat_feeder
	Feeder		webcat_feeder_sdfbroker
			<b>webcat_feeder_sdfbroker_csndc</b>
	Migration Support	Data Generator	datagenerator
			<b>datagenerator_csndc</b>
	PDS	Pre Import	<b>emsa_csn_preimport</b>
		Inventory	ACS_Emsa_SdfServer
			ACS_Emsa_SdfClient-applications
			ACS_Emsa_GarbageCleaner
			ACS_Emsa_SharedLibraries
			ACS_Emsa_SdfClientBase
			csndc-jms-producer
			mule-esb
		Import	ACS_Emsa_DGF-FTP
	PDS Gui	COTS	aracme2.0
			mcf_kernel
			<b>mcf_emsa</b>
			Sibilla
			SibillaWebSite_PDS
			<b>SibillaWebSite_PDS_EMSA</b>
	Alerting	Report Generator	fop_report_manager
			<b>fop_report_manager_csndc</b>
	ISM Light		ism_light
			<b>ism_light_emsa_csndc</b>
			ism_support_files
			SibillaWebSite_ISM_EMSA
			SibillaWebSite_ISM
	common		<b>acs_global_config_emsa</b>
			<b>emsa_common_libs</b>
			acs_database
			ACSPHPLib
			PEAR::XML_Serializer
			PEAR::Pager
			PEAR::Net_LDAP
			PEAR::MDB2_Driver_pgsql
			PEAR::MDB2_Driver_oci8

	PEAR::MDB2_Driver_mysql
	PEAR::Mail
	PEAR::Log
	PEAR::HTTP_Session
	PEAR::HTTP_Request
	PEAR::HTTP
	PEAR::HTML_Template_Sigma
	PEAR::HTML_Template_IT
	PEAR::HTML_QuickForm
	PEAR::HTML_Menu
	PEAR::File_Archive
	PEAR::DB_Pager
	PEAR::DB_Idap
	PEAR::Crypt_Blowfish
	PEAR::Console_Getargs
	PEAR::DB
	PEAR::Config
	PEAR::Net_Socket
	PEAR::MIME_Type
	PEAR::HTML_Common
	PEAR::XML_Parser
	PEAR::Net_URL
	PECL::oci8
	PEAR::XML_Util
	PEAR::MDB2
	php-gd
	php-netcdf
	php-soap
	php-pecl-ovo
	php-pecl-ssh2
	php-pear
	php-devel
	php-xml
	php-pdo
	php-mysql
	jpgraph
	libssh2
	gdal
	compat-postgresql-libs-4-1PGDG.rhel5
	emsa_security_patch_wls
	emsa_support_files
	expect
	expect-devel

			geos
			geos-devel
			hdf5
			netcdf
xPMAWxx	Thin Layer	Processor	<b>ACS_Emsa_Radiometric_Normalization</b>
		Processor	ACS_Emsa_ThinLayer
		Support	ACS_Emsa_SdfClient-applications
			ACS_Emsa_ThinLayerBase
			ACS_Emsa_GarbageCleaner
			ACS_Emsa_SdfClientBase
			ACS_Emsa_SharedLibraries
			acs_database
			gdal
xWLSxx (business)	GIS VIEWER		SibillaWebSite_SINBAD
			<b>SibillaWebSite_SINBAD_CSN_DC</b>
	Stires Proxy		<b>StiresWFSProxyService</b>
	VCat		vcat_csw_weblogic_emsa_csndc
	DeeGree		degree_wfs_weblogic_emsa_csndc
	QBridge		emsa_csndc_qbridge
	POR		<b>SibillaWebSite_EMSA_POR</b>
	Migration Support	Data Generator	datagenerator
			<b>datagenerator_csndc</b>
	Archive / Backup		<b>emsa_csn_data_policy_server</b>
	MD5 Server		<b>emsa_csn_hash_server</b>
	JOU		<b>emsa_csndc_jou_com_finsys_war</b>
	COM		<b>emsa_csndc_jou_com_finsys_conf</b>
	FINSYS		
	Alerting	Emailer	<b>emsa_csn_scheduler</b>
		Admin GUI	<b>SibillaWebSite_SINBAD_EMSA_OAS</b>
		Communication Matrix	<b>SibillaWebSite_EMSA_OAS_ADMIN</b>
		Report Generator	<b>csndc_report</b>
	Reporting		<b>acs_php_jreport_tools</b>
			SibillaWebSite_EMSA_JREPORT
	Standing Order	Generator	pds2_import (only on WLS09)
		Notifier	pds2_import_emsa_csndc (only on WLS09)
	common	Global Configuration Parameters	<b>acs_global_config_emsa</b>
		Common libraries	<b>emsa_common_libs</b>
		Help Manuals	<b>emsa_csndc_help_manual</b>

Security Configuration Parameters	<b>emsa_security_patch_wls</b>
Installation and Test Support Files	<b>emsa_support_files</b>
	Sibilla
	ACSPHPLib
	PEAR::XML_Serializer
	PEAR::Pager
	PEAR::Net_LDAP
	PEAR::MDB2_Driver_pgsql
	PEAR::MDB2_Driver_oci8
	PEAR::MDB2_Driver_mysql
	PEAR::Mail
	PEAR::Log
	PEAR::HTTP_Session
	PEAR::HTTP_Request
	PEAR::HTTP
	PEAR::HTML_Template_Sigma
	PEAR::HTML_Template_IT
	PEAR::HTML_QuickForm
	PEAR::HTML_Menu
	PEAR::File_Archive
	PEAR::DB_Pager
	PEAR::DB_Idap
	PEAR::Console_Getargs
	PEAR::DB
	PEAR::Config
	PEAR::Net_Socket
	PEAR::MIME_Type
	PEAR::HTML_Common
	PEAR::XML_Parser
	PEAR::Net_URL
	PECL::oci8
	PEAR::XML_Util
	PEAR::MDB2
	php-gd
	php-soap
	php-pecl-ovo
	php-pecl-ssh2
	php-pear
	php-devel
	php-xml

	php-pdo
	php-mysql
	geos
	geos-devel
	hdf5
	Jpgraph
	libssh2
	lm_sensors
	gdal

### 2.4.3 WARs/JARs List

The following is the list of all components that are not provided as RPM but as WAR or JAR file, apart from those that are set by WebLogic and LifeRay.

Source code is provided for all packages highlighted in bold.

Machine	Component	Sub Component	Package Name
[x]WGT[yy] (portal)	Alerting	Admin GUI	<b>csndc-sibilla-jsp-portlet.war</b>
		Communication Matrix	
		GIS VIEWER	
	POR		
	FinSys		<b>csndc-finsys_portlet_n_n.war</b>
	JOU		<b>csndc-jou_portlet_n_n.war</b>
<b>OIM</b>	OIM		<b>csndc-oim-prov.jar</b> <b>Web-services-wars.zip</b>

## **SYSTEM MAINTENANCE PROCEDURES**

## 3 SYSTEM MAINTENANCE PROCEDURES

This section provides information about the specific procedures necessary for the programmer to maintain the collective software units that make up the system.

### 3.1 Conventions

CSN-DC environment is composed of many different components developed in different languages (mainly PHP and JAVA) plus a lot of COTS (mainly PHP, C++ and Java): Thus, there are not global naming conventions but only local conventions depending on the COTS and/or the language.

The following sections will highlight the main conventions used.

#### 3.1.1 DB Tables Prefix

Most of the tables in the Databases have a special prefix. The following table summarises all used prefixes:

Prefix	Components	DB User	Comment
<b>SIB_</b>	Alerting POR GIS VIEWER JOU FINSYS	oasusr porusr wupusr jouws finsys	Tables related to the authorisation mechanism
<b>OAS_</b>	Alerting	oasusr	
<b>T_</b>	PDS	pdsusr	
<b>HIST_</b>	POR	porusr	History tables
<b>ORDER_</b>	POR	porusr	Cart tables
<b>PDS_</b>	POR	porusr	Standing Order tables
<b>X_</b>	POR	porusr	Cross tables
<b>T_SCHEMA</b>	All	All	These tables are used to keep track of the DB Schema version with all the patches applied
<b>ACS_</b>	GIS VIEWER	wupusr	Tables containing data for CSN-DC
<b>WEBCAT_</b>	GIS VIEWER	wupusr	Tables containing configuration data for satellites/sensors/products

#### 3.1.2 Configuration files

There are some standard naming convention used to define parameters in the configuration files. The following table summarises all of them:

Prefix	Config File	Comment
<b>BL_</b>	ACS Global Config	Denotes a Business Layer parameter
<b>ORACLE_</b>	ACS Global Config	Denotes a DB Connection parameter
<b>DAM_</b>	ACS Global Config	Denotes a DB Connection parameter
<b>PREIMP_</b>	ACS Global Config	Denotes a PreImport parameter
<b>TPL_</b>	General INI	Denotes a template file
<b>LOG_</b>	General INI	Denotes a parameter related to logging

### 3.1.3 Components

There are some conventions used for the naming of the files or directories. The following table summarises all of them:

Type	Value	Comment
File extension	.mxml	A template used by FLEX to create an interface
File extension	.lst	An ascii file with a list of items
Directory	config	A directory containing the configuration files
Directory	setup	Contains all files used during the RPM installation
Directory	rpm	Contains all script files used by the installation procedure
Directory	mapping	Contains all .xslt files used to remap OGC queries

Most of the PHP code relies on the Sibilla framework developed by ACS. Every package using Sibilla must be named using the 'SibillaWebSite' prefix.

Moreover, GIS VIEWER and Alerting GUI are using Sinbad, a special PHP framework based on Sibilla and aimed at providing special support for OGC based interfaces. Packages based on Sinbad must be named using the 'SibillaWebSite\_SINBAD' prefix.

## 3.2 Automatic System Health Monitoring

System health must be continuously and automatically check by an external monitoring application.

Machine: [x]PMAS[yy]

Component	Executable	Action
PreImport	/usr/sbin/crond	Check Daemon Status
Import / Inventory	/usr/acs/bin/Import /usr/acs/bin/FTPExport /usr/acs/bin/Cleaner	Check Daemon Status Check that the Import log file (\$ 4.3) is writing updated strings every few seconds, polling on the reception policies.
Order Generator	/usr/acs/bin/OrderGenerator	Check Daemon Status
Mule Daemon	/opt/mule-standalone-2.2.1/bin/mule	Check Daemon Status
VSFTPD - PDS	/usr/sbin/vsftpd	Check Daemon Status
HTTPD - PDS	/usr/sbin/httpd	Check Daemon Status

Machine: [x]MAW[yy]

Component	Executable	Action
TLDaemon	/usr/acs/bin/TlDaemon	Check Daemon Status

Machine: [x]WLS[yy]

Component	Executable	Action
WebLogic		Server must be up and running
ReportGenerator	Deployed on WebLogic	Deployment must be in good health
Degree-WFS	Deployed on WebLogic	Deployment must be in good health
VCAT-CSW	Deployed on WebLogic	Deployment must be in good health

JOUWS	Deployed on WebLogic	Deployment must be in good health
FINSYSWS	Deployed on WebLogic	Deployment must be in good health
QBridge	Deployed on WebLogic	Deployment must be in good health
Alerting EMailer	/usr/sbin/crond	Check Daemon Status
Standing Order	/usr/sbin/crond	Check Daemon Status
HTTPD - WLS POR GIS Viewer Alerting GUIs MD5 Service	/usr/sbin/httpd	Check Daemon Status

Machine: [x]WGT[yy]

Component	Executable	Action
WebLogic		Server must be up and running
JOU Portlet	Deployed on WebLogic	Deployment must be in good health
COM Portlet	Deployed on WebLogic	Deployment must be in good health
FinSys Portlet	Deployed on WebLogic	Deployment must be in good health
Sibilla JSP Portlet	Deployed on WebLogic	Deployment must be in good health

#### External Services

Component	Service	Action
PreImport	SFTP used by Service Providers	Service must be reachable and must have enough free space
	MyOcean's FTP sites	Services must be reachable
Stires Proxy	SSN AIS service	Service must be reachable
GIS Viewer POR Alerting GUI	C-MAP Cluster	Service must be reachable

## 3.3 System Check-Up Procedures

Apart from automatic monitoring of the main processes, there might be cases where the verification of the health of a certain component might require a manual intervention.

In the next sections, a simple verification procedure is provided for all foreseen cases.

### 3.3.1 Data Ingestion and PDS administration

Affected components: PreImport, Import, PreInventory, Inventory, OrderGenerator, Mule Daemon, WebCat Feeder, VSFTPD-PDS, FOP Report Manager, TLDaemon, EMSAPV, ISM Light, Report Generator, DeeGree-WFS, Geoserver, VCAT-CSW, PDS GUI, HTTPD-PDS.

To verify the health status of the data ingestion sub-system it will be necessary to carry out the package *re-ingestion procedure*, as described in the [PDS-ING] reference document.

This is a procedure which simulates the actual processing chain of the PDS, thus covering all components listed above. In particular the procedure allows performing re-ingestion of an existing data package.

If the procedure is executed in Production, please make sure that data older than 1 day is used, so as to prevent automatic dissemination of alerts (the default system configuration is such that when data older than 1 day are ingested, alerts are not sent).

### 3.3.2 Data Visualisation

Affected components: GIS Viewer, Geoserver, DeeGree-WFS, VCAT-CSW, HTTPD-WLS, Alerting  
To verify the health status of the data ingestion sub-system it will be necessary to carry out the visualisation checks as described in the [MSS-PROC] reference document. In particular it is recommended to execute the data ingestion verification test and this procedure in cascade.

### 3.3.3 COMs

Affected components: COM Portlet

The main reasons these components may fail are misconfigurations and database access failures. In order to guarantee the correct system configuration please follow the steps described at the installation manual.

To check the database, test the jdbc connection from the weblogic console.

### 3.3.4 Journaling System

Affected components: JOWWS, JOW Portlet

To verify if the JOW webservice is correctly connected to the JMS queue, check the number of consumers on Weblogic. The number displayed there should be 2 (one per cluster node where the webservice is running).

On the Weblogic administration console:

Services -> Messaging -> JMS Modules -> csndc-jms-module -> jowws-jms-queue -> Monitoring (tab)

If the number of consumers is not two, stop and start the JOW webservice on the Weblogic deployments screen.

Being a webservice, JOW defines and exposes its WSDL, which can be seen at <hostname>/csndc-jow-ws/csndc-jow-ws?WSDL.

JOWPORTLET: If a static report fails to appear, check that the installation procedure for that particular report has been done correctly, namely the substitution for the correct report directory on the .jrxml file. Also check that the portlet properties file has the ReportPath entry filled in correctly in URI format.

### 3.3.5 Financial System

Affected components: FINSYSWS, FYNIS Portlet

This component exposes a secure web service interface for usage from the JOW Component and the FinSys component.

This interface can be accessed from [http://<business\\_layer\\_url>/csndc-finsys-ws/csndc-finsys-ws?WSDL](http://<business_layer_url>/csndc-finsys-ws/csndc-finsys-ws?WSDL)

### 3.3.6 Check the health status of the JMS queues

Log on the WebLogic Administration console.

Click on Services -> Messaging -> JMSModules

Click on the system module (e.g. csn...),

Click on jouQueue

Under the "Monitoring" tab there is a table indicating the following items:

- name
- message current
- messages pending
- messages total
- consumers current
- consumers high
- consumers total
- messages high

Check that there is at least 1 consumer and no message pending.

## 3.4 Maintenance Procedures

The operational procedures indicated in this section are grouped according to the physical components of the CSNDC system or even according to the machines where the applications are installed according to the various cases.

### 3.4.1 FULL SYSTEMRESTART

This procedure shows the correct machine boot sequence in case of entire system restart. All services are started automatically at boot time hence, there is no need to manually start or stop a service.

[LEV] means that the machine is part of the leverage infrastructure

#### Correct start-up sequence:

- [LEV] Oracle Database
- [LEV] Oracle Identity Management Suite
- Processing Workstation ([x]PMAW[yy])
- [LEV] FTP Servers
- PDS Server ([x]PMAS[yy])
- Business Tier ([x]WLS[yy])
- [LEV] Load Balancers
- [LEV] Presentation Tier

#### Correct shutdown sequence:

- [LEV] Presentation Tier
- Business Tier ([x]WLS[yy])
- [LEV] Load Balancers
- PDS Server ([x]PMAS[yy])
- [LEV] FTP Servers
- Processing Workstation ([x]PMAW[yy])
- [LEV] Oracle Identity Management Suite
- [LEV] Oracle Database

#### WebLogic Node Restart

This is the correct procedure to follow in order to restart a node on WebLogic  
On WebLogic Console:

- select csN > Environment > Clusters (on the left)
- click on csNCluster (on the right)
- select the Control tab
- select both managed servers csNServer1+csNServer2, then do the Shutdown button > Force shutdown now, then acknowledge it (yes).
- To startup, the same, after selecting both managed servers, select Start button and acknowledge (yes).

- A stop takes a few seconds, a start more like a half-one minute...
- You check the restart by looking at deployments (all should be Active) and the JMS is on csnsServer1 with health OK.

### 3.4.2 REGULAR MAINTENANCE ACTIVITIES

#### 3.4.2.1 Log Cleaning

Depending on the components, there are different directories used to store the log files and different cleaning strategies, namely:

- Last XXX zip: log files are automatically rotated and zipped. Rotation occurs every time the log size exceeds 1 MB or 1 day has passed. Only the last XXX zip files are kept.
- Last YYY days: log files are daily rotated and kept only the last YYY days

The following table summarises them all.

cleaning policy for all PHP managed applications (those logging in the /var/www/html/logs) are managed by the *logrotate* utility (an operating system utility), thus rotation policy can be configured accordingly (<http://linuxconfig.org/setting-up-logrotate-on-redhat-linux>). Rotation policy for all other log files is generally not configurable, although it would be possible to use the logrotate configured accordingly.

Machine: [x]PMAS[yy]

Directory	Log File (.log)	Component	Cleaning
/usr/acs/log	Cleaner	PDS - Inventory	Last 3 zip
	DistributorGenerator		Last 20 zip
	FTPExport		Last 20 zip
	RollingArchive		Last 5 zip
	OrderGenerator		Last 3 zip
	PackageOptimiser		Last 20 zip
	Import	PDS - Import	Last 3 zip
/var/www/html/logs	Preimp_<DATE>	PDS - PreImport	Last 10 days
	dg_<DATE>	Data Generator	Last 10 days
	fop_report_manager_<DATE>	Report Generator	Last 10 days
	webcat_feeder_<DATE>	WebCat Feeder	Last 10 days
	ism_<DATE>	ISM Light	Last 10 days
	stires_<DATE>	Stires	Last 10 days

Machine: [x]MAW[yy]

Directory	Log File (.log)	Component	Cleaning
/usr/acs/log	GarbageCleaner	ThinLayer	Last 4 zip
	ThinLayerDaemon	ThinLayer	Last 4 zip
	WSConfigMerger	ThinLayer	Last 4 zip

Machine: [x]WLS[yy]

Directory	Log File (.log)	Component	Cleaning
/var/www/html/logs	dg_<DATE>	Data Generator	Last 10 days
	csn_hash_<DATE>	MD5 Server	Last 10 days
	emsa_notification_scheduler_<DATE>	Alerting Emailer	Last 10 days
	por_<DATE>	POR	Last 10 days
	websec_<DATE>	GIS VIEWER (File Upload)	Last 10 days
	wup_<DATE>	GIS VIEWER	Last 10 days
	stires_proxy_<DATE>	Stires Proxy	Last 10 days
	alert_admin_<DATE>	Alerting GUI	Last 10 days
	alert_matrix_<DATE>	Alerting Communication Matrix	Last 10 days
/usr/acs/log	pds2_import_csndc_<DATE>	Standing Order Generator	Last 10 days
	pds2_notifier_csndc_<DATE>	Standing Order Notifier	Last 10 days
/wl_domains/csn/servers/csnServers/log	csnServer.log csnServer.out	DeeGree GeoServer VCat QBridge	Last 8 logs
/geoserver_data/logs	geoserver.log	GeoServer	Last 4 logs
/wl_domains/csn/deployments/csnhome/logs	csndc-jou-ws	JOU	Last 3 logs up to 2Mb each
	csndc-finsys-ws	FinSys	Last 3 logs up to 2Mb each

Machine: [x]WGT[yy]

Directory	Log File (.log)	Component	Cleaning
/wl_domains/csnportal/deployments/csnhome/logs	csndc-jou-portlet	JOU	Last 3 logs up to 2Mb each
	csndc-finsys-portlet	FinSys	Last 3 logs up to 2Mb each
	csndc-com-forum-portlet	COM - Forum	Last 3 logs up to 2Mb each
	csndc-com-calendar-portlet	COM - Calendar	Last 3 logs up to 2Mb each
	csndc-com-wiki-portlet	COM - Wiki	Last 3 logs up to 2Mb each
	csndc-com-dlibrary-portlet	COM- Document Library	Last 3 logs up to 2Mb each

## 3.4.2.2 PDS Disk Cleaning

During the ingestion phase, these are the directories used by the various components in the ingestion pipeline. In normal conditions these should be used only as temporary directories, containing only the files that are about to be processed.

However, in case of failure, the processed files are moved to other directories in order to allow an operator to inspect these files and understand the reason of the failure.

What follows is the list of the traversed components and associated directories: They all are in the [x]PMAS[yy] machine.

Component	Type	Destination
<b>Pre Import</b>	Input	Service Providers' FTP sites MyOcean's FTP sites
	Output	/raid0/opemsa/ftpInBasket
	Contingency	/raid0/opemsa/badfiles  This directory is not automatically cleaned and must be manually checked. It contains products not respecting the naming convention.
<b>Import</b>	Input	/raid0/opemsa/ftpInBasket
	Output	/raid0/opemsa/FTPWorkSpace/Import/PreInvWork
	Contingency	/raid0/opemsa/FTPWorkSpace/Import/backup  This directory contains the packages that are not valid for the import process, so that a deep debug can be done. This directory must be cleaned manually.
<b>Pre Inventory</b>	Input	/raid0/opemsa/FTPWorkSpace/Import/PreInvWork
	Output	/raid0/inventory/working
	Contingency	/raid0/opemsa/FTPWorkSpace/Import/backup  This directory contains the packages that are not valid for the import process, so that a deep debug can be done. This directory must be cleaned manually.
<b>Inventory</b>	Input	/raid0/inventory/working
	Output	Package metadata on the DB Package file on the ISM
	Contingency	/raid0/inventory/backup  In case of error, the entire working directory is copied to this directory, so that a deep debug can be done. This directory must be cleaned manually.
<b>Mule Daemon</b>	Input	/raid0/opemsa/jmsfiles
	Output	Message posted on the JMS Queue Message logged to: /raid0/opemsa/jmsfiles/processed  This directory is currently not cleaned automatically
	Contingency	/raid0/opemsa/jmsfiles/processed  This directory is currently not cleaned automatically
<b>WebCat Feeder</b>	Input	ISM => /var/www/html/webcat_feeder_sdfbroker/incoming
	Output	DeeGree GeoServer VCat

Contingency	/var/www/html/webcat_feeder/black_list
-------------	--

To summarise, this is the list of the directories that need special attention and manual cleaning:

- /raid0/opemsa/badfiles
- /raid0/opemsa/FTPWorkspace/Import/backup
- /raid0/inventory/backup
- /var/www/html/webcat\_feeder/black\_list
- /raid0/pds\_tmp

In particular the folder /raid0/pds\_tmp (whose real location will depend on the setting of the global variable GLOBAL\_TEMPORARY\_DIR – see Annex B) is used for storing temporary files used by the application such as:

- temporary files created for file download / upload via GUI
- PID files, i.e. files storing the PID of a give process that are used for checking that no 2 processes run in parallel triggering the same component
- temporary log files

In many cases these temporary files are deleted at the end of the process which created them, but this not always happens, either because it is not foreseen by the application, or because there may be a failure during the process that is responsible for cleaning them up.

#### 3.4.2.1 FinSys Temporary Directory Cleaning

FinSys component uses the following directory on each [x]WLS[yy] machine:

*/weblogic/middleware/user\_projects/domains/acciis\_domain/deployments/csnhome/taskingForm/signed\_pdf*

for the creation of temporary files. Files older than 1 day can be safely deleted.

Each month, when the tasking procedure is done, six files (30kb each) are generated into this directory.

Thus, a yearly maintenance process to remove files from the last year is required to avoid an excessive growth.

#### 3.4.2.1 THIN LAYER –Regular Cleaning

The Thin Layer is the responsible of handling the SAR image processing. This is a process running on the [x]PMAW[yy] machines.

A regular maintenance consists in:

In case the system needs more disk space, two attempts can be made:

1. Removing old log files in the /usr/acs/log directory
2. Checking in the production directory

*/raid0/opemsa/production*

if any working directory is left for orders that have been unsuccessful;

## 3.5 Data clean-up

This section includes all specific procedures to be used whenever it is necessary to clean-up the data, for example because some corrupted data were received, etc.

### 3.5.1 How to remove an object from PDS Inventory

Log on the [x]PMAS[yy] as opemsa.

Launch the following command:

```
MultiRemoveInventoryObject --filename <file 1> <file 2> ... <file N>
```

Where *<file 1> <file 2> ... <file N>* are the files to be removed.

NOTE: this function deletes the files from the PDS Inventory and tries to propagate the deletion also on the Deegree and Geoserver storage, but the complete deletion is not guaranteed, as it may depend on other constraints (e.g. the file is being accessed by another process).

### 3.5.2 How to remove all Oil Spills related to a given Service ID

This procedure allows removing all Oil Spills related to a given Service ID from the DeeGree WFS catalogue.

REMARK: to remove an oilspill, it is necessary to remove all its links to other information entities, namely feedbacks and possible sources.

It's worth to stress that feedbacks and possible sources are linked to the unique ID of the Oilspill that is provided by the WFS during the ingestion. Thus, leaving feedbacks and possible sources on the DB would produce zombie records as there will not be a way to relink them to a reingested oilspill as it will have a different ID.

Since this can be an error-prone procedure if done manually on the DBs, a special tool is provided.

- As 'root', log on a WLS machine.
- Go to the following directory:
  - *cd /var/www/html/emsupport\_files/ogc*
- Launch the following command:
  - *php csn\_remove\_objects.php oilspill <Service ID>*
- If the scene related to this Service ID has one or more OilSpills, the tool provides a list of all the OilSpill IDs together with the number of feedbacks and possible sources associated.
- Then, the user is requested to confirm the deletion: type YES and press Enter
- The tool will delete all the feedbacks and possible sources associated with every OilSpill and then all the Oilspills.

### 3.5.3 How to remove EO Metadata from VCAT

This procedure allows removing all metadata of a given EO Product from the DeeGree VCAT-CSW catalogue and its corresponding image on GeoServer.

Since this can be an error-prone procedure if done manually, a special tool is provided.

- As 'root', log on a WLS machine.
- Go to the following directory:
  - `cd /var/www/html/emsupport_files/ogc`
- Launch the following command:
  - `php cs_remove_objects.php eoscene <Service ID>`
- Then, the user is requested to confirm the deletion: type YES and press Enter
- The tool will delete all the metadata from VCAT and the image from GeoServer.

REMARK: this procedure is likely to work for 90% of the cases. However, if the Service Provider has provided a different name in the EOP package, this procedure will fail. In this case, launch the following command:

```
php cs_remove_objects.php eoscene <Service ID> <EO Product Name>
```

Where <EO Product Name> is the file name of the corresponding EOP package without the initial scene ID and the final extension. For example, if the metadata to be removed from the VCAT belong to package:

*5616\_ASA\_WSM\_1PNPDK20120129\_214746\_000000923111\_00130\_51868\_0616\_EOP.tgz*

Then the corresponding PRODUCT\_ID will be

*ASA\_WSM\_1PNPDK20120129\_214746\_000000923111\_00130\_51868\_0616*

### 3.5.4 How to remove Detected Vessels from WFS<sup>2</sup>

This procedure allows removing all detected vessels of a given EO Product from the DeeGree WFS catalogue.

Since this can be an error-prone procedure if done manually, a special tool is provided.

- As 'root', log on a WLS machine.
- Go to the following directory:
  - `cd /var/www/html/emsupport_files/ogc`
- Launch the following command:
  - `php cs_remove_objects.php detected_vessels <Service ID>`
- Then, the user is requested to confirm the deletion: type YES and press Enter
- The tool will delete all the Detected Vessels from WFS.

## 3.6 Special System Configuration Files & Templates

---

<sup>2</sup> This functionality is available for CSN version >= 1.4.5

The following sections highlight some specific configuration and template files of the entire system that are not already listed in Chapter 4, that is, that are not the main configuration files.

These files include:

- Email templates
- GIS Viewer Additional Configuration (such as ORUS Layers, etc.)
- JMS Message Templates

**Remark: Any change in these files is at your own risk and must be notified to the contractor in order to include it in the next release of the software.**

### 3.6.1 Email Templates

Component	Alerting Emailer
Description	Templates used to remind the users about actions to be taken on the Planning Tool
File(s)	Path: /var/www/html/emsa_csn_scheduler/resources/templates  Files: <ul style="list-style-type: none"> <li>• cs_cart_ready.tpl</li> <li>• cs_reminder.tpl</li> <li>• sp_so_cart_ready.tpl</li> <li>• sp_so_reminder.tpl</li> </ul>
Remarks	cs = Coastal State; sp = Service Provider

Component	FOP Report Manager (Alerting)
Description	Templates used to send information regarding Clean Sea, Warning, Notification, etc.
File(s)	Path: /var/www/html/fop_report_manager_csn/dc/templates  Files: <ul style="list-style-type: none"> <li>• email_message_cleansea.tpl</li> <li>• email_message_notification.tpl</li> <li>• email_message_voice.tpl</li> <li>• email_message_warning.tpl</li> </ul>
Remarks	N/A

Component	Standing Order
Description	Templates used to notify the user about a new Standing Order
File(s)	Path: /var/www/html/pds2_import_emsa_csn/dc/templates/  Files: <ul style="list-style-type: none"> <li>• mail_template_notification_err.tpl</li> <li>• mail_template_notification_ok.tpl</li> <li>• mail_template.tpl</li> </ul>
Remarks	N/A

### 3.6.2 GIS Viewer Specific

<b>Description</b>	Download Licence (EULA)
<b>File(s)</b>	/var/www/html/SibillaWebSite_SINBAD_CSN_DC/resources/download/Licence.txt
<b>Remarks</b>	N/A

<b>Description</b>	List of keywords used in the FeedBack interface
<b>File(s)</b>	/var/www/html/SibillaWebSite_SINBAD_CSN_DC/resources/templates/feedback/keywords.lst
<b>Remarks</b>	N/A

<b>Description</b>	Contains the XML configuration of the map toolbar. Can be used to enable/disable all the toolbar buttons.
<b>File(s)</b>	Path: /var/www/html/sibilla-static/sinbad_csn_dc_config  File: configToolsButtonInterface.xml
<b>Remarks</b>	To reload the new configuration, clear the browser cache

<b>Description</b>	This file is used to configure the left pane of the map component. It contains the list of the WMS servers available for adding layers to the map.
<b>File(s)</b>	Path: /var/www/html/sibilla-static/sinbad_csn_dc_config  File: config.xml
<b>Remarks</b>	To reload the new configuration, clear the browser cache

<b>Description</b>	This represents the default configuration of the right pane of the map component. This defines the content of the map viewport in terms of geographical regions, visible layers and their visibility order.
<b>File(s)</b>	Path: /var/www/html/sibilla-static/sinbad_csn_dc_config  File: contextMap.xml
<b>Remarks</b>	This file is an OGC Web Map Context xml file  To reload the new configuration, clear the browser cache

<b>Description</b>	This file is used to list of the required components of the map. Moreover, it allows for the configuration of the WMS serving the navigation map popup (the small popup windows with the entire globe)
<b>File(s)</b>	Path: /var/www/html/sibilla-static/sinbad_csn_dc_config  File: mapConfig.xml
<b>Remarks</b>	The only allowed changes are those related to the <pathMapIcoWin>, that is the one related to the navigation map popup

	To reload the new configuration, clear the browser cache
--	--

### 3.6.3 JMS Message Templates

Component	MD5 Service
Description	Template used to inform JOU of the arrival of a new package. This is to establish the time the package was ready without considering the network transmission times (for the SLA)
File(s)	/var/www/html/ems_a_csn_hash_server/templates/jms/hash_jou_new_md5_msg.xml
Remarks	N/A

Component	Pre Inventory
Description	Template used to inform JOU about a New Package
File(s)	/usr/acs/conf/EmsaPreInventory/MessageTemplate.txt
Remarks	N/A

Component	POR
Description	Various JMS messages sent to both JOU and FinSys
File(s)	Path: /var/www/html/SibillaWebSite EMSA_POR/ems_a_por.res/resources/templates/jms  Files: <ul style="list-style-type: none"> <li>• por_jou_cancel_order_msg.xml</li> <li>• por_jou_new_order_detail_msg.xml</li> <li>• por_jou_new_order_master_msg.xml</li> <li>• por_jou_report_approved.xml</li> <li>• por_jou_report_foao.xml</li> <li>• por_jou_scene_master_msg.xml</li> <li>• por_jou_task_detail_msg.xml</li> <li>• por_jou_task_master_msg.xml</li> </ul>
Remarks	N/A

### 3.6.4 Special instruction for CMAP change

CMAP value is spread across many configuration files. To avoid changing all of them, it is sufficient to execute the following procedure.

- As root on each [x]WLS[yy] machine:
- Edit the /usr/acs/conf/acs\_global\_config.ini file and change the CMAP\_WMS\_URL token to the new value
- Save this file

- Go to the following directory:  
/var/www/html/emsa\_support\_files/installation/wls/
- Launch the following script: emsa\_apache\_customizations.sh

### 3.7 Special Procedures

The following sections describe all the special procedures not covered in previous chapters.

#### 3.7.1 Create a Workspace for CSN public layers in GeoServer

This procedure is expected to be done just once for all.

- Launch a browser and connect to: <http://pwls09:7021/geoserver>
- Login as admin (credentials have been provided in the operation manual)
- In the main window click on "Create workspaces"
- Fill the "New Workspace" form as follows:

Name	put 'csnpublic'
Namespace URI	put 'csnpublic'
Default workspace	leave un-checked

#### 3.7.2 Add a Shape File in GeoServer as a new Layer

This is the procedure to load a shape file as a new layer in geoserver and see it on the WUP GISViewer. It is expected that the steps on section 3.7.1

- On pwls09, as user 'opemsa', create a temporary directory on /tmp and copy all of the shape files tdh.\* from your local directory to the newly created directory (we will refer to it as <new dir>)
- Log into pwls09, change user to 'root' and launch the following commands:  
cd to /geoserver\_data/data/  
mkdir tdh  
chown oracle tdh  
cp <new dir>/tdh.\* to /geoserver\_data/data/tdh
- Launch a browser and connect to: <http://pwls09:7021/geoserver>
- Login as admin (credentials have been provided in the operation manual)
- In the main window click on "Add stores"
- Under "Vector Data Sources" click on "Shapefile"
- Fill the "New Vector Data Source" form as follows:

Workspace	select 'csnpublic'
-----------	--------------------

<b>Data Source Name</b>	put a name for the layer, e.g. 'TDH Waypoints'
<b>Description</b>	put a description, e.g. 'Waypoints for CSN operation in area XXX'
<b>Enabled</b>	checked
<b>URL</b>	put the path to the shapefile (.shp) in the form: 'file:<shapefile_path>' The <shapefile_path> shall be the relative path to the .shp file starting from the geoserver data directory (see installation manual for details)

- Leave the rest of the form unchanged (default values)
- Click "Save" button
- Under the Data Menu select "Layers" and then click on "Add a new resource" From the list of "New Layer Chooser", choose the "Add layer from" csnpblic:TDH Waypoints and click on "Publish"
- In the form that appears on the screen, leave unchanged all the default settings but:

<b>Declared SRS</b>	type 'EPSG:4326'
<b>SRS handling</b>	select 'Force declared'
<b>Bounding Boxes - Native Bounding Box</b>	click on 'Compute from data'
<b>Bounding Boxes - Lat/Lon Bounding Box</b>	click on 'Compute from native bounds'

- Test the new layer by clicking on "Layer Preview" (on the left menu) and then on the "OpenLayers" link of the newly added item
- Display the layer on the WUP GISViewer
- Edit file:  
/var/www/html/SibillaWebSite\_SINBAD\_CSN\_DC/web/sinbad\_csn\_dc\_config/config.xml (on both pwls09 and pwls10)
- Add following line  
<node Name="EMSA\_WMS" Title="EMSA\_WMS"  
OnlineResource="{CUSTOM\_WMS\_SERVER\_URL}" GetCap="true"  
service="OGC:WMS" version="1.1.1"/>
- As root on pwls09 and pwls10, launch the script  
sh  
/var/www/html/emsa\_support\_files/installation/wls/emsa\_apache\_customizations.sh

As a result, a new EMSA\_WMS server appears in the Servers list of the GISViewer map (the panel on the left of the map area). Clicking on the EMSA\_WMS server, the list of all the layers available in geoserver will be visible.

The User has to select the 'tdh\_waypoints' layer and drag it on the map (or click the 'Add to Map' button) in order to display it on the map.

## **SOFTWARE UNIT MAINTENANCE PROCEDURES**

## 4 system UNIT MAINTENANCE PROCEDURES

### 4.1 Consolidated Unit List

Paragraph	Software Name	Purpose
<b>xPMASxx: PDS Server</b>		
4.2	Preimport	Downloads files from the service provider ftp/sftp server to the PDS input basket
4.3	Import	Links the external sources and the PDS archive manager
4.4	EmsaPreinventory	Extracts PDS mandatory information from the various packages; checks EMSA Packages correctness.
4.5	Inventory	Inventory the Packages in the PDS and in the ISM archive
0	Order Generator	Creates processing orders to generate the SAR PV raster files.
4.7	Mule	Sends JMS message to the JOU and Financial System
4.8	WebcatFeeder	Feeds the OGC catalogues
4.9	Stires Harvester	Retrieve Stires Data
4.10	Vsftpd - PDS	FTP Server
4.11	Httpd - PDS	Apache web server, serves the PDS GUI
4.12	PDS GUI	The PDS Web Graphical User Interfaces
4.13	FOP Report Manager	Alert Report Generator
4.14	ISM Light	ISM WebService and Storage Manager
<b>xPMAWxx: PDS Workstations</b>		
4.15	TLDaemon	Handles order status in the inventory Downloads input files necessary for order execution Generates the Job Order Activates the Scheduler
4.16	EMSAPV	CFI Processor, performs the SAR radiometric normalisation and produces Pyramidal geotiff images served by the WMS
<b>xWLSxx: Business Tier Nodes</b>		
4.17	Report Generator	Builds up the PDF Alert Report
4.18	Deegree-WFS	Deegree Web Feature Server
4.21	GeoServer	Web Map Server
4.20	Httpd - WLS	Apache webserver to execute PHP scripts
4.21	Vcat-csw	Deegree Web Catalogue Server
4.22	JouWs	Journaling system Backend Web Service
4.25	FinSysWs	Financial system Backend Web Service
4.28	POR	Planning and Ordering Php application
4.27	GIS Viewer	Web User Portal Php Application
4.31	Alerting Emailer	Alerting Emailer Php Application
4.29	Alerting Admin	Alerting Admin Interfaces Php Application
4.30	Alerting Matrix	Alerting Communication Matrix Application
4.31	Standing Order	Standing Order Generator & Notifier
4.33	MD5 Service	MD5 Service

4.34	QBridge	PHP-JMS WebService Bridge
4.36	Stires Proxy	Proxy to serve AIS data via OGC calls
4.37	Archive Component	Implements archive and restore policies, that can be run manually or in automated mode.
<b>[x]GEO[yy] Geoserver nodes (where [yy] can be 01 or 02)</b>		
4.19	Geoserver	Geoserver COTS, used for implementing the WMS and CSW functionalities.
<b>Presentation Tier Nodes</b>		
4.35	Sibilla JSP Portlet	PHP-JMS WebService Bridge
4.23	Jou Portlet	Journaling Systems Portlet
4.24	Com Portlet	Communication Portlets
4.26	FinSys Portlet	Financial System Portlet

## 4.2 Pre-Import

Description	<p>The Pre-import daemon retrieves files from the FTP sites exposed to the Service Providers and those exposed MyOcean.</p> <p>The files retrieved are moved to the input directory of the Import process of the PDS.</p> <p>Files retrieved from the Service Providers, once copied are removed from the FTP sites.</p> <p>This daemon is a PHP script launched every minute by the CRON daemon.</p>					
Location	<table><tr><th>Machine</th><th>Executable</th></tr><tr><td>[x]PMAS[yy]</td><td>/var/www/html/emsa_csn_preimport/engine/preimport.php</td></tr></table>		Machine	Executable	[x]PMAS[yy]	/var/www/html/emsa_csn_preimport/engine/preimport.php
Machine	Executable					
[x]PMAS[yy]	/var/www/html/emsa_csn_preimport/engine/preimport.php					
Running as	opemsa					
Service Start	service crond start					
Service Stop	service crond stop					
Service Status	service crond status					
Input	Service Providers' SFTP Sites, MyOcean's FTP sites					
Validation & Processing	Naming convention check					
Output	Good files are moved to: /raid0/opemsa/ftpInBasket					
Contingency	Files with bad naming convention are moved to: /raid0/opemsa/badfiles					
Configuration File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/emsa_csn_preimport/config</td><td>preimp.ini</td></tr></table>		Path	File name	/var/www/html/emsa_csn_preimport/config	preimp.ini
Path	File name					
/var/www/html/emsa_csn_preimport/config	preimp.ini					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/logs</td><td>preimp yyyy-mm-dd.log</td></tr></table>		Path	File name	/var/www/html/logs	preimp yyyy-mm-dd.log
Path	File name					
/var/www/html/logs	preimp yyyy-mm-dd.log					

### 4.2.1 Configuration

Crontab, the acs\_global\_config file and the preimp.ini file control the behaviour of pre-import script

#### 4.2.1.1 crontab

For each ftp (or sftp) user defined in the external repository, a line in the crontab exists:

```
#### ACS_EMSA_CSN_PREINV_CRONTAB ####
# Once per minute
*/1 * * * * php -q /var/www/html/emsa_csn_preimport/engine/preimport.php ksat > /dev/null
*/1 * * * * php -q /var/www/html/emsa_csn_preimport/engine/preimport.php cls > /dev/null
*/1 * * * * php -q /var/www/html/emsa_csn_preimport/engine/preimport.php edisoft > /dev/null
*/1 * * * * php -q /var/www/html/emsa_csn_preimport/engine/preimport.php egeos > /dev/null

Once every hour (on the clock)
0 * * * * php -q /var/www/html/emsa_csn_preimport/engine/preimport.php myocean > /dev/null
#### END_ACS_EMSA_CSN_PREINV_CRONTAB ####
```

Note that for myocean, there is only one line as all the configured files are considered just as one task (myocean) with multiple sub-tasks (all the ftp sites to be contacted).

Hence, when adding new FTP sites for myocean via the preimp.ini file, there is no need to change anything in the crontab.

## 4.3 Import

<b>Description</b>	<p>Import component has responsibility to be the in-bound link between external source of data (users) and internal PDS archive managers. Communication with entities is configurable and is specific to the particular couple "User/data type". Import allows a secure transfer of data permitting retransmission in case of communication problems.</p> <p>FTPExport is a PDS function that may be used for automatic dissemination of files produced by the PDS to external repositories. It is a mechanism similar to the Import, where dissemination is automatically triggered when files are produced. The functionalities of this component do not match the specific case of CSNDC, thus this function is not used.</p> <p>Cleaner is a mechanism for routinely and asynchronously cleaning the IO Repositories used by the Import function. By policy all CSNDC input PDS IO Repositories are internal to the CSNDC system itself (e.g. /raid0/opemsa/ftpInpBasket) and as such they are automatically cleaned when files are imported, thus there is no need for asynchronous cleaning.</p>				
<b>Location</b>	<table> <tr> <th>Machine</th><th>Executables</th></tr> <tr> <td>[x] PMAS [yy]</td><td>           /usr/acs/bin/Import            /usr/acs/bin/FTPExport            /usr/acs/bin/Cleaner         </td></tr> </table>	Machine	Executables	[x] PMAS [yy]	/usr/acs/bin/Import /usr/acs/bin/FTPExport /usr/acs/bin/Cleaner
Machine	Executables				
[x] PMAS [yy]	/usr/acs/bin/Import /usr/acs/bin/FTPExport /usr/acs/bin/Cleaner				
<b>Running as</b>	opemsa				
<b>Service Start</b>	/etc/init.d/ftplnit start				
<b>Service Stop</b>	/etc/init.d/ftplnit stop				
<b>Service Status</b>	/etc/init.d/ftplnit status				
<b>Input</b>	Any file in: <i>/raid0/opemsa/ftpInBasket</i>				
<b>Validation &amp; Processing</b>	The daemon reads the configured workflow from the PDS Oracle database and calls the PreInventory process configured for that product type (see 4.4)				
<b>Output</b>	Files are moved to: <i>/raid0/opemsa/FTPWorkspace/Import/PreInvWork</i>				
<b>Contingency</b>	In case of failure, files are moved to: <i>/raid0/opemsa/FTPWorkspace/Import/backUp</i>				
<b>Configuration File</b>	ALL CONFIGURATION IS KEPT IN THE DATABASE				
<b>Log File</b>	<table> <tr> <th>Path</th><th>File name</th></tr> <tr> <td>/usr/acs/log</td><td>Import.log</td></tr> </table>	Path	File name	/usr/acs/log	Import.log
Path	File name				
/usr/acs/log	Import.log				

### 4.3.1 Configuration

The entire configuration of this component is handled via the PDS GUI, menu Configuration.

## 4.4 EMSA Pre-Inventory

Description	<p>Emsa Pre-inventory application is used to:</p> <ul style="list-style-type: none"> <li>• Perform specific checks about package correctness</li> <li>• Extract metadata for PDS inventory</li> </ul> <p>Depending on the package type, there are different PreInventory executables, namely:</p> <table border="1"> <thead> <tr> <th>Executable</th><th>Product Type</th></tr> </thead> <tbody> <tr> <td rowspan="6">EmsaPreInventory.php</td><td>ASARQL_CONF</td></tr> <tr> <td>EO_PRODUCT</td></tr> <tr> <td>OS_NOTIFIC</td></tr> <tr> <td>OS_WARNING</td></tr> <tr> <td>QUALITY_NOTIFIC</td></tr> <tr> <td>QUALITY_REPORT</td></tr> <tr> <td>netCDF_Pre.php</td><td>NetCDF</td></tr> </tbody> </table>	Executable	Product Type	EmsaPreInventory.php	ASARQL_CONF	EO_PRODUCT	OS_NOTIFIC	OS_WARNING	QUALITY_NOTIFIC	QUALITY_REPORT	netCDF_Pre.php	NetCDF
Executable	Product Type											
EmsaPreInventory.php	ASARQL_CONF											
	EO_PRODUCT											
	OS_NOTIFIC											
	OS_WARNING											
	QUALITY_NOTIFIC											
	QUALITY_REPORT											
netCDF_Pre.php	NetCDF											
Location	<table border="1"> <thead> <tr> <th>Machine</th><th>Executables</th></tr> </thead> <tbody> <tr> <td>[x] PMAS[yy]</td><td>/usr/acs/bin/EmsaPreInventory.php</td></tr> <tr> <td></td><td>/usr/acs/bin/netCDF_Pre.php</td></tr> </tbody> </table>	Machine	Executables	[x] PMAS[yy]	/usr/acs/bin/EmsaPreInventory.php		/usr/acs/bin/netCDF_Pre.php					
Machine	Executables											
[x] PMAS[yy]	/usr/acs/bin/EmsaPreInventory.php											
	/usr/acs/bin/netCDF_Pre.php											
Running as	opemsa											
Service Start	Launched by the Import application											
Service Stop	N/A											
Service Status	N/A											
Input	<p>Any file in:</p> <p><i>/raid0/opemsa/FTPWorkSpace/Import/PreInvWork</i></p>											
Validation & Processing	<p>The functions implement by this application are to:</p> <ul style="list-style-type: none"> <li>• Validate the file hash (MD5) with the one stored on the POR DB by the MD5 Service.</li> <li>• Explode the package</li> <li>• Parse all the files</li> <li>• Create specific files for the Inventory process</li> <li>• Create special files for the communication with JOU via JMS</li> </ul>											
Output	<p>Each PreInventory application produces the following files:</p> <ul style="list-style-type: none"> <li>• &lt;package_name&gt;.MTD : file containing extracted metadata</li> <li>• &lt;package_name&gt;.LIST : file containing list of files contained in the package; for CSN-DC contains always one file</li> <li>• &lt;package_name&gt;.JMS : this file is not produced for all packages. It contains JMS messages to be sent to JOU and FINSYS JMS queues via the Mule daemon (see 4.7)</li> </ul> <p>These files are produced in a working directory under:</p> <p><i>/raid0/inventory/working</i></p>											
Contingency	<p>In case of failure, files are moved to:</p> <p><i>/raid0/opemsa/FTPWorkSpace/Import/backup</i></p>											
Configuration File	<table border="1"> <thead> <tr> <th>Path</th><th>File name</th></tr> </thead> <tbody> <tr> <td>/var/acs/conf</td><td>pdsPreInventory.ini</td></tr> </tbody> </table>	Path	File name	/var/acs/conf	pdsPreInventory.ini							
Path	File name											
/var/acs/conf	pdsPreInventory.ini											
Log File	<table border="1"> <thead> <tr> <th>Path</th><th>File name</th></tr> </thead> <tbody> </tbody> </table>	Path	File name									
Path	File name											

<code>/usr/acs/log</code>	<code>preinventory_YYYY-mm-dd.log</code>
---------------------------	--

#### 4.4.1 Configuration files

There are some additional configuration files to handle the JMS communication with JOU, namely:

File Type	File Name
Configuration file	<code>/usr/acs/conf/EmsaPreInventory_1.0.xml</code>
JMS Message Template	<code>/usr/acs/conf/EmsaPreInventory/MessageTemplate.txt</code> <code>/usr/acs/conf/EmsaPreInventory/MetadataTemplate.txt</code>
XSD Schema	<code>/usr/acs/schemas/EmsaPreInvSchemas/</code>

#### 4.4.2 Special processing

For the Quality Notification Package, the EmsaPreInventory program performs a query in the database in order to extract the Validity Start and Stop of the package. Then it:

1. Query the PDS Oracle `t_inventory` table, searching for the corresponding EOP package. If the package is found, start and stop times are retrieved from the EOP
2. If the EOP package is not found, a query is performed on the POR table, searching for a scheduled package. If the package is found Validity Start and Stop are retrieved from the scheduled package
3. If the above queries do not retrieve the information, an error is logged

## 4.5 Inventory

Description	<p>This application inserts an package into the ISM and some generic metadata in the inventory catalogue (searchable via the PDS GUI, see 4.12)</p> <p>When the Inventory program is called, it:</p> <ul style="list-style-type: none"> <li>• Reads the file having the same filename of the file to be inventoried, with .LIST extension. This contains the list of all the files composing the package (for EMSA is always one file)</li> <li>• Reads the file having the same filename of the file to be inventoried, with .MTD extension. The file contains the metadata extracted from the specific pre-inventory program, or produced directly by the processor.</li> <li>• Uses the above information to insert the file in the ISM and its metadata in the inventory catalogue.</li> </ul>				
Location	<table> <tr> <th>Machine</th><th>Executables</th></tr> <tr> <td>[x]PMAS[yy]</td><td>/usr/acs/bin/Inventory</td></tr> </table>	Machine	Executables	[x]PMAS[yy]	/usr/acs/bin/Inventory
Machine	Executables				
[x]PMAS[yy]	/usr/acs/bin/Inventory				
Running as	opemsa				
Service Start	N / A (it is encapsulated in the Import component)				
Service Stop	N / A				
Service Status	N / A				
Input	Any file in: <i>/raid0/inventory/working</i>				
Validation & Processing	<p>It communicates:</p> <ul style="list-style-type: none"> <li>• with the database to insert the metadata in the inventory</li> </ul> <p>with the ISM via a SOAP call and an FTP transfer of the given package</p>				
Output	Package metadata on the DB Package file on the ISM				
Contingency	<p>In case of failure, the file is moved to <i>/raid0/inventory/backup</i></p> <p>Moreover, in all cases where the data is considered invalid the entire working directory is left on: <i>/raid0/inventory/working</i> for debugging inspection.</p>				
Configuration File	Via the PDS GUI				
Log File	<table> <tr> <th>Path</th><th>File name</th></tr> <tr> <td><i>/usr/acs/log</i></td><td><i>Inventory_&lt;YYYYMMDD&gt;T&lt;hhmmss&gt;.&lt;id&gt;log</i></td></tr> </table> <p><b>NOTE: Inventory log files are also found on the [x]PMAS[yy] machine, because inventory is invoked by the EMSAPV processor for storing the PV files.</b></p>	Path	File name	<i>/usr/acs/log</i>	<i>Inventory_&lt;YYYYMMDD&gt;T&lt;hhmmss&gt;.&lt;id&gt;log</i>
Path	File name				
<i>/usr/acs/log</i>	<i>Inventory_&lt;YYYYMMDD&gt;T&lt;hhmmss&gt;.&lt;id&gt;log</i>				



## 4.6 ORDER GENERATOR

Description	This component generates the processing orders necessary to generate the PV (raster files using SAR images in input).  <b>NOTE:</b> distributor generator and package optimizer are responsible for handling distribution policies, which, although being a function of the PDS in CSNDC are not used as explained in section 4.3.					
Location	<table><tr><th>Machine</th><th>Executables</th></tr><tr><td>[x] PMAS [yy]</td><td>/usr/acs/bin/OrderGenerator /usr/acs/bin/DistributorGenerator /usr/acs/bin/PackageOptimizerGenerator</td></tr></table>		Machine	Executables	[x] PMAS [yy]	/usr/acs/bin/OrderGenerator /usr/acs/bin/DistributorGenerator /usr/acs/bin/PackageOptimizerGenerator
Machine	Executables					
[x] PMAS [yy]	/usr/acs/bin/OrderGenerator /usr/acs/bin/DistributorGenerator /usr/acs/bin/PackageOptimizerGenerator					
Running as	Opemsa					
Service Start	service sdfsrv start					
Service Stop	service sdfsrv stop					
Service Status	service sdfsrv status					
Input	<i>Triggered by inventory</i>					
Validation & Processing	N/A					
Output	Processing order to generate the PV file corresponding to the ingested EOP. This can be seen as an entry in the Order monitor tool.					
Contingency	<i>Handled by the TLDaemon</i>					
Configuration File	Via the PDS GUI					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/usr/acs/log</td><td>OrderGenerator.log</td></tr></table>		Path	File name	/usr/acs/log	OrderGenerator.log
Path	File name					
/usr/acs/log	OrderGenerator.log					

## 4.7 Mule daemon

Description	This daemon polls a configured input directory for all .jms files: These files are read and sent to the configured JMS queue(EMSA_JMS_QUEUE).	
Location	<b>Machine</b>	<b>Executables</b>
	[x]PMAS[yy]	/opt/mule-standalone-2.2.1/bin/mule
Running as	root	
Service Start	/etc/init.d/jms start	
Service Stop	/etc/init.d/jms stop	
Service Status	/etc/init.d/jms status	
Input	Any JMS message file in: /raid0/opemsa/jmsfile	
Validation & Processing	The daemon checks the wellformedness of the JMS message and the connection to the JMS Queue.	
Output	<p>Message sent on the JMS Queue</p> <p>Messages are moved to /raid0/opemsa/jmsfile</p>	
Contingency	In case of failure, the error is logged and the message is moved to: /raid0/opemsa/jmsfile	
Configuration File	<b>Path</b>	<b>File name</b>
	/usr/acs/conf/	csndc-jms.properties
Log File	<b>Path</b>	<b>File name</b>
	/opt/mule-standalone-2.2.1/logs	mule.log

## 4.8 WebCat Feeder

Description	<p>WebCat Feeder daemon is used to populate the DeeGree, Geoserver and VCat services with the appropriate content every time a new package has been ingested by the Inventory application and stored via the ISM.</p> <p>The feeder also creates a notification message each time a package is ingested, following the details described in <b>[TDD]</b>.</p> <p>This daemon is a PHP script launched every minute by the CRON daemon.</p>												
Location	<table> <tr> <th>Machine</th><th>Executable</th></tr> <tr> <td>[x]PMAS[yy]</td><td>/var/www/html/webcat_feeder/engine/webcat_feeder_sdfbroker.php</td></tr> </table>	Machine	Executable	[x]PMAS[yy]	/var/www/html/webcat_feeder/engine/webcat_feeder_sdfbroker.php								
Machine	Executable												
[x]PMAS[yy]	/var/www/html/webcat_feeder/engine/webcat_feeder_sdfbroker.php												
Running as	opemsa												
Service Start	service crond start												
Service Stop	service crond stop												
Service Status	service crond status												
Input	<p>The application checks the PDS database to see if new items have been inventoried: if so, the packages are retrieved from the ISM and put in a temporary working directory:</p> <p>/var/www/html/webcat_feeder_sdfbroker/incoming</p>												
Validation & Processing	Package retrieved are open, parsed and, depending on the package type, transformed into valid calls for DeeGree, VCat or GeoServer.												
Output	Valid calls to DeeGree and/or Geoserver and/or VCat												
Contingency	<p>In case of failure, the error is logged and the package is moved to:</p> <p>/var/www/html/webcat_feeder/black_list</p>												
Configuration Files	<table> <tr> <th>Path</th><th>File name</th></tr> <tr> <td>/var/www/html/webcat_feeder/config</td><td>webcat_feeder.ini</td></tr> <tr> <td>/var/www/html/webcat_feeder/config</td><td>ext_webcat_feeder.ini</td></tr> <tr> <td>/var/www/html/webcat_feeder/config</td><td>collector.ini</td></tr> <tr> <td>/var/www/html/webcat_feeder/config</td><td>pds_cleanup.ini</td></tr> <tr> <td>/var/www/html/webcat_feeder/config/ini.d</td><td>sdfbroker.ini</td></tr> </table> <p>In particular the end point of the notification service is configurable in the acs_global_config.ini file, using the SES_SERVICE_URL parameter, see § 9.</p> <p>To toggle on/off the notification service, use the following parameter in the sdfbroker.ini file (in <b>bold</b> below, use true/false to activate/deactivate the service):</p> <pre>[ses] wfs_service_url      = &lt;SES_SERVICE_URL&gt; wfs_exception_xpath  = //ServiceException, //ows:Exception, //ows:ExceptionText with_curl             = On <b>service_on</b>          = <b>false</b></pre>	Path	File name	/var/www/html/webcat_feeder/config	webcat_feeder.ini	/var/www/html/webcat_feeder/config	ext_webcat_feeder.ini	/var/www/html/webcat_feeder/config	collector.ini	/var/www/html/webcat_feeder/config	pds_cleanup.ini	/var/www/html/webcat_feeder/config/ini.d	sdfbroker.ini
Path	File name												
/var/www/html/webcat_feeder/config	webcat_feeder.ini												
/var/www/html/webcat_feeder/config	ext_webcat_feeder.ini												
/var/www/html/webcat_feeder/config	collector.ini												
/var/www/html/webcat_feeder/config	pds_cleanup.ini												
/var/www/html/webcat_feeder/config/ini.d	sdfbroker.ini												
Log File	<table> <tr> <th>Path</th><th>File name</th></tr> <tr> <td>/var/www/html/logs</td><td>webcat_feeder_yyyy-mm-dd.log</td></tr> </table>	Path	File name	/var/www/html/logs	webcat_feeder_yyyy-mm-dd.log								
Path	File name												
/var/www/html/logs	webcat_feeder_yyyy-mm-dd.log												

## 4.9 Stires Harvester

Description	<p>Stires Harvester is used to populate the DeeGree service with the AIS data collected from the Stires service and related to all the acquired scenes, with a time interval of 6 hours before the acquisition start time of each given scene.</p> <p>This daemon is a PHP script launched every 6 minutes by the CRON daemon.</p> <p><b>NOTE:</b> even if this component is not calling the former STIRES services, the original name of the component (STIRES HARVESTER) has been kept, as the functionality is delivered with an upgrade version of the former stires engine.</p>																			
Location	Machine	Executable																		
	[x] PMAS [yy]	/var/www/html/webcat_feeder_sdfbroker_csndc/engine/launch_process.php																		
Running as	opemsa																			
Service Start	service crond start																			
Service Stop	service crond stop																			
Service Status	service crond status																			
Input	<p>The application queries the POR database for all scenes whose Acquisition Start Time is within the next 6 hours. For each of these scenes, the application computes the Minimum Bounding Rectangle (MBR) and creates an OGC compliant call for the Stires Proxy (see below).</p> <p>/var/www/html/webcat_feeder_sdfbroker/incoming</p>																			
Validation & Processing	Results of the OGC call are parsed and every vessel is inserted into the DeeGree service.																			
Output	Vessels traffic data																			
Contingency	In case of failure, the error is logged.																			
Configuration File	Path	File name																		
	/var/www/html/webcat_feeder_sdfbroker_csndc/config	stires.ini																		
	The following paramters in the above configuration file may be relevant to fine tune the behaviour of this harvester:																			
	<table><tr><th>Variable</th><th>Description</th><th>Example value</th></tr><tr><td>Imdate_source_types</td><td>Data sources to be retrieved from IMDatE (a comma separated list)</td><td>T-AIS, LRIT</td></tr><tr><td>time_interval</td><td>The value used to trigger the distribution in IMDatE. It defines the time span over which the AIS data will be collected, typically 6 hours.</td><td>"'6' hour"</td></tr><tr><td>max_time_interval</td><td>Time after which vessel traffic data are not collected by this engine.</td><td>"'2' day"</td></tr><tr><td>stires_sampling_interval</td><td>The interval for each new collection of AIS data created by IMDatE</td><td>"'12' minute"</td></tr><tr><td>outside_data_time_interval</td><td>The delta time used to request additional AIS data to the IMDatE track service.</td><td>"'5' minute"</td></tr></table>			Variable	Description	Example value	Imdate_source_types	Data sources to be retrieved from IMDatE (a comma separated list)	T-AIS, LRIT	time_interval	The value used to trigger the distribution in IMDatE. It defines the time span over which the AIS data will be collected, typically 6 hours.	"'6' hour"	max_time_interval	Time after which vessel traffic data are not collected by this engine.	"'2' day"	stires_sampling_interval	The interval for each new collection of AIS data created by IMDatE	"'12' minute"	outside_data_time_interval	The delta time used to request additional AIS data to the IMDatE track service.
Variable	Description	Example value																		
Imdate_source_types	Data sources to be retrieved from IMDatE (a comma separated list)	T-AIS, LRIT																		
time_interval	The value used to trigger the distribution in IMDatE. It defines the time span over which the AIS data will be collected, typically 6 hours.	"'6' hour"																		
max_time_interval	Time after which vessel traffic data are not collected by this engine.	"'2' day"																		
stires_sampling_interval	The interval for each new collection of AIS data created by IMDatE	"'12' minute"																		
outside_data_time_interval	The delta time used to request additional AIS data to the IMDatE track service.	"'5' minute"																		
Log File	Path	File name																		
	/var/www/html/log	stires_yyyy-mm-dd.log																		



## 4.10 VSFTPD - PDS

Description	The FTP Server is used by the PDS server to receive files from the pre-import application.		
	It is the standard FTP server distributed with the Red Hat server.		
Location	Machine	Executable	
	[x] PMAS [yy]	/usr/sbin/vsftpd	
Running as	root		
Service Start	service vsftpd start		
Service Stop	service vsftpd stop		
Service Status	service vsftpd status		
Input	Any file in the PDS input basket: <i>/raid0/opemsa/ftpInBasket</i>		
Validation & Processing	User authentication is performed at connection time.		
Output	Requested file		
Contingency	N/A		
Configuration File	Path	File name	
	<i>/etc/vsftpd</i>	<i>Vsftpd.conf</i>	
Log File	Path	File name	
	<i>/etc/logrotate.d</i>	vsftpd.log	

## 4.11 Httpd - PDS

Description	Apache HTTPD server is used to host the PDS Web Graphical User Interfaces .  The HTTPD Daemon is the Apache Server Project. It is the standard web server distributed with the Red Hat Distribution. Please refer to the Red Hat Manuals for further information.							
Location	<table><tr><th>Machine</th><th>Executable</th></tr><tr><td>[x] PMAS [yy]</td><td>/usr/sbin/httpd</td></tr></table>	Machine	Executable	[x] PMAS [yy]	/usr/sbin/httpd			
Machine	Executable							
[x] PMAS [yy]	/usr/sbin/httpd							
Running as	apache							
Service Start	service httpd start							
Service Stop	service httpd stop							
Service Status	service httpd status							
Input	Any file in the working directory: /var/www/html/mcf/web							
Validation & Processing	HTML/CSS pages are served normally, while PHP pages are processed via the PHP interpreter							
Output	Requested file							
Contingency	If the server is down, no PDS GUI page can be served							
Configuration File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/etc/httpd/conf</td><td>httpd.conf</td></tr><tr><td>/etc/httpd/conf.d</td><td>*.conf</td></tr></table>	Path	File name	/etc/httpd/conf	httpd.conf	/etc/httpd/conf.d	*.conf	
Path	File name							
/etc/httpd/conf	httpd.conf							
/etc/httpd/conf.d	*.conf							
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/log/httpd</td><td>error_log</td></tr></table>	Path	File name	/var/log/httpd	error_log			
Path	File name							
/var/log/httpd	error_log							

## 4.12 PDS GUI

Description	This component contains all the PHP and Flex pages of the web based application used to configure and control the PDS.  Refer to the PDS GUI manual for further information.					
Location	<table><tr><th>Machine</th><th>Pages</th></tr><tr><td>[x] PMAS [yy]</td><td>/var/www/html/mcf/web</td></tr></table>		Machine	Pages	[x] PMAS [yy]	/var/www/html/mcf/web
Machine	Pages					
[x] PMAS [yy]	/var/www/html/mcf/web					
Running as	apache					
Service Start	Linked to HTTPD					
Service Stop	Linked to HTTPD					
Service Status	Linked to HTTPD					
Input	A package in the working directory: /var/www/html/mcf/web					
Validation & Processing	Depending on the requested page, the component will do one or more of the following actions: <ul style="list-style-type: none"><li>• Check user credentials</li><li>• Log operations on a file</li><li>• Connect to the PDS DB</li><li>• Perform some action on the PDS</li></ul>					
Output	Requested file					
Contingency	If the HTTPD server is down, no PDS GUI page can be served					
Configuration File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/mcf/config</td><td>mcf.ini ext mcf.ini</td></tr></table>		Path	File name	/var/www/html/mcf/config	mcf.ini ext mcf.ini
Path	File name					
/var/www/html/mcf/config	mcf.ini ext mcf.ini					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/logs</td><td>mcf_yyyy_mm_dd.log</td></tr></table>		Path	File name	/var/www/html/logs	mcf_yyyy_mm_dd.log
Path	File name					
/var/www/html/logs	mcf_yyyy_mm_dd.log					

## 4.13 FOP Report Manager

Description	This component is used to prepare the information to be sent to the Report Manager in order to create the PDF report document.	
Location	<b>Machine</b>	<b>Executable</b>
	[x] PMAS [yy]	/var/www/html/fop_report_manager/engine/report_manager.php
Running as	opemsa	
Service Start	Launched by the PreInventory application EmsaPreInventory.php	
Service Stop	N/A	
Service Status	N/A	
Input	EOP/OSN/OSW packages from the PreInventory	
Validation & Processing	Depending on the package type, some information are extracted and some XSLT transformation are performed in order to prepare all the information needed by the Report Generator servlet running on the WLS cluster.	
Output	Files for the Report Generator	
Contingency	Errors are logged on the file.	
Configuration File	<b>Path</b>	<b>File name</b>
	/var/www/html/fop_report_manager/config	report_manager.ini ext_report_manager.ini
Log File	<b>Path</b>	<b>File name</b>
	/var/www/html/logs	fop_report_manager_yyyy_mm_dd.log
	<p><b>NOTE:</b> the above path is the typical configuration. Given that this log is particularly verbose it was decided in production to put it in a larger disk under /shared_nfs/logs</p>	

## 4.14 Ism Light

Description	<p>The ISM (Improved Storage Manager) Light is a hierarchical file storage facility. For Cleanseanet, the current ISM configuration is meant to use only online caches.</p> <p>IsmManager Light is a web service exposed via Apache, using a NFS attached appliance as storage repository.</p> <p>The web service manages all external requests (upload, download and remove of files).</p>					
Location	<table><tr><th>Machine</th><th>Executable</th></tr><tr><td>[x] PMAS [yy]</td><td>/usr/sbin/httpd</td></tr></table>	Machine	Executable	[x] PMAS [yy]	/usr/sbin/httpd	
Machine	Executable					
[x] PMAS [yy]	/usr/sbin/httpd					
Running as	apache					
Service Start	Linked to HTTPD (see 4.11)					
Service Stop	Linked to HTTPD (see 4.11)					
Service Status	Linked to HTTPD (see 4.11)					
Input	An ISM Soap call					
Validation & Processing	<p>File is stored according to the following rules:</p> <ul style="list-style-type: none"><li>• If the file is one of the packages provided by the Service Providers, it is stored onto a subdirectory whose name is computed by taking the rounded value from the Order ID divided by 100. This allows for a balanced separation of files in directories, where every directory shall contain packages for a maximum of 100 scenes</li><li>• For all other files, the directory is computed taking the first two characters of the MD5 computed on the filename.</li></ul>					
Output	A requested file in case of file retrieval					
Contingency	Errors are logged on the log file.					
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/ism_light/config</td><td>ism.ini</td></tr></table>	Path	File name	/var/www/html/ism_light/config	ism.ini	
Path	File name					
/var/www/html/ism_light/config	ism.ini					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/logs</td><td>ism_yyyy_mm_dd.log</td></tr></table>	Path	File name	/var/www/html/logs	ism_yyyy_mm_dd.log	
Path	File name					
/var/www/html/logs	ism_yyyy_mm_dd.log					

## 4.15 TlDaemon

Description	<p>The Thin Layer Daemon acts as a wrapper of the Science Processors into the PDS, encapsulating it into the proposed Architecture. The “thin-layer” software resides over and around the CFI Processors, prepares all the necessary input files, schedules it and manages its output product files for the distribution to the other PDS sub-systems.</p> <p>The Thin Layer does in sequence the following functions:</p> <ul style="list-style-type: none"><li>• Get from PDS DB order queue, an order for production,</li><li>• Retrieve from SDF the task table correspondent to product level in the order</li><li>• Retrieve from SDF the data type table correspondent to product level in the order</li><li>• Retrieves from the ISM all files needed by the order,</li><li>• Schedule and Monitors executables configured in the table e.g. Science Data CFI Processor batch programs,</li><li>• Pushes in the ISM the image products, as produced by the Science Data CFI Processor</li></ul>					
Location	<table><tr><th>Machine</th><th>Executable</th></tr><tr><td>[x]PMAW[yy]</td><td>/usr/acs/bin/TlDaemon</td></tr></table>	Machine	Executable	[x]PMAW[yy]	/usr/acs/bin/TlDaemon	
Machine	Executable					
[x]PMAW[yy]	/usr/acs/bin/TlDaemon					
Running as	opemsa					
Service Start	/etc/init.d/TlDaemon start					
Service Stop	/etc/init.d/TlDaemon stop					
Service Abort	/etc/init.d/TlDaemon abort					
Service Status	/etc/init.d/TlDaemon status					
Input	EOP package working directory from Inventory					
Validation & Processing	Depending on the package type, some information are extracted and some XSLT transformation are performed in order to prepare all the information needed by the Report Generator servlet running on the WLS cluster.					
Output	The Output of the specific process is stored in the ISM archive					
Contingency	Errors are logged on the log file, reported on the PDS GUI .					
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/usr/acs/conf/local</td><td>WSConfig.xml</td></tr></table>	Path	File name	/usr/acs/conf/local	WSConfig.xml	
Path	File name					
/usr/acs/conf/local	WSConfig.xml					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/usr/acs/log</td><td>ThinLayerDaemon.log</td></tr></table>	Path	File name	/usr/acs/log	ThinLayerDaemon.log	
Path	File name					
/usr/acs/log	ThinLayerDaemon.log					

## 4.16 EMSAPV

Description	<p>EMSAPV is the processor performing SAR Radiometric Normalisations</p> <p>It is hosted in each processing workstation.</p>				
Location	<table> <tr> <th>Machine</th><th>Executable</th></tr> <tr> <td>[x] PMAW[yy]</td><td>/usr/acs/processors/EMSAPV/bin/EMSAPV</td></tr> </table>	Machine	Executable	[x] PMAW[yy]	/usr/acs/processors/EMSAPV/bin/EMSAPV
Machine	Executable				
[x] PMAW[yy]	/usr/acs/processors/EMSAPV/bin/EMSAPV				
Running as	opemsa				
Service Start	Launched by the TLDaemon				
Service Stop	N/A				
Service Status	N/A				
Input	EOP and QNO Packages and the Work Order Generated by the Thin Layer.				
Validation & Processing	<p>The processing is started only when both files are available in the PDS inventory.</p> <p>The following condition must be satisfied:</p> <ul style="list-style-type: none"> <li>QNO and EOP package must share the same name radix: (if the EOP is named xyz1234_EOP.tgz the QNO must be named xyz1234_QNO.tgz)</li> <li>Valid start and valid stop of QNO and EOP must overlap</li> </ul> <p>The processor performs 3 main processing steps:</p> <p><b><u>Native format geocoding</u></b></p> <ul style="list-style-type: none"> <li>Ingest native format</li> <li>Correct with given image shift</li> <li>Correct for incidence angle with <math>\tan(i)^F</math></li> <li>Geocode to UTM projection</li> </ul> <p><b><u>Conversion to lat-lon</u></b></p> <p>Convert to EPSG:4326 (lat-lon) projection</p> <p><b><u>Build pyramid structure</u></b></p>				
Output	A GeoTiff image whose name is the same as the EOP package with the PV extension (ex. if the EOP package is called 1234_abcd_EOP.tgz the output will be called 1234_abcd_PV.tif).				
Contingency	Errors are logged on the log file, reported on the PDS GUI				
Configuration Files	<table> <tr> <th>Path</th><th>File name</th></tr> <tr> <td>/usr/acs/processors/EMSAPV/conf</td><td>EMSAPV_conf.xml</td></tr> </table>	Path	File name	/usr/acs/processors/EMSAPV/conf	EMSAPV_conf.xml
Path	File name				
/usr/acs/processors/EMSAPV/conf	EMSAPV_conf.xml				
Log File	<p>For each processing Order, a log is generated in the temporary processing directory. Directory is created in the Workstation that booked the order.</p> <p>Structure:</p> <p>/raid0/opemsa/production/&lt;nnnn&gt;/LOG.&lt;nnnn&gt;</p> <p>where nnnn is the order number</p> <p>The directory is kept if some error occurs, otherwise is removed.</p>				



## 4.17 report GENERATOR

Description	Report Generator is a servlet that uses Jasper and the information provided by the FOP Report Manager to create the Alerting Report PDF file	
Location	Machine	Servlet Directory
	[x]WLS[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report
Running as	oracle	
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console	
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console	
Service Status	Use WebLogic Administration Console	
Input	A set of data in XML format sent via POST by FOP Report Generator	
Validation & Processing	This servlet combines the received data with some extra calls to DeeGree, GeoServer and VCat services. The PDF creation is done via Jasper.	
Output	The generated PDF file is returned to the FOP Report Generator that, in turn, will store it into the Alerting DB.	
Contingency	N/A	
Configuration Files	Path	File name
	/wl_domains/csn/deployments/csndc-report/csndc-report/WEB-INF/resources	configuration.properties
Log File	Path	File name
	/wl_domains/csn/servers/csnServers/log	csnServer.log csnServer.out

## 4.18 Deegree-Wfs

Description	Deegree is a comprehensive geospatial software package with implementations of <a href="#">OGC</a> Web Services like WMS and WFS, a geoportal, a desktop application, security mechanisms, and various tools for geospatial data processing and management. It is open source ( <a href="#">LGPL</a> ), Java, standards-compliant ( <a href="#">OGC</a> , <a href="#">ISO</a> ) and an <a href="#">OSGeo</a> project.							
	It is used to store and retrieve all information regarding OilSpills and Vessels.							
Location	<table><tr><th>Machine</th><th>Servlet Directory</th></tr><tr><td>[x]WLS[yy]</td><td>/wl_domains/csn/deployments/deegreewfs/deegreewfs2.3/degree-wfs</td></tr></table>	Machine	Servlet Directory	[x]WLS[yy]	/wl_domains/csn/deployments/deegreewfs/deegreewfs2.3/degree-wfs			
Machine	Servlet Directory							
[x]WLS[yy]	/wl_domains/csn/deployments/deegreewfs/deegreewfs2.3/degree-wfs							
Running as	oracle							
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console							
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console							
Service Status	Use WebLogic Administration Console							
Input	An WFS-OGC compliant call							
Validation & Processing	An OGC compliance check is performed. Oilspill and Vessels are stored on the Deegree Oracle Database							
Output	An OGC compliant XML containing all the objects matching the query							
Contingency	This service is called by WebCat Feeder for data store  Report Manager and GIS Viewer by-pass the DEEGREE server and perform direct query to its database, thus, if this service is down, the GIS Viewer and Alerting components are not affected. If the service is unavailable the caller will issue an error on its log file.							
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/deployments/deegreewfs/deegreewfs2.3/degree-wfs/WEB-INF</td><td>web.xml</td></tr></table>	Path	File name	/wl_domains/csn/deployments/deegreewfs/deegreewfs2.3/degree-wfs/WEB-INF	web.xml			
Path	File name							
/wl_domains/csn/deployments/deegreewfs/deegreewfs2.3/degree-wfs/WEB-INF	web.xml							
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/servers/csnServers/log</td><td>csnServer.log</td></tr><tr><td></td><td>csnServer.out</td></tr></table>	Path	File name	/wl_domains/csn/servers/csnServers/log	csnServer.log		csnServer.out	
Path	File name							
/wl_domains/csn/servers/csnServers/log	csnServer.log							
	csnServer.out							

## 4.19 Geoserver

Description	<p>GeoServer is an open source software server written in Java that allows users to share and edit geospatial data. Designed for interoperability, it publishes data from any major spatial data source using open standards.</p> <p>For additional information, please check <a href="http://geoserver.org">http://geoserver.org</a>. Documentation could be found at <a href="http://docs.geoserver.org/">http://docs.geoserver.org/</a></p> <p>Geoserver is used to implement the CSN-DC WMS (Web Map Server). It is deployed in the <i>Geoserver</i> servers (dedicated servers).</p>							
Location	<table><tr><th>Machine</th><th>Servlet Directory</th></tr><tr><td>[x]GEO[yy]</td><td>/tomcat/deployments/geoserver/geoserver-2.6.x-acs-latest.war</td></tr></table>	Machine	Servlet Directory	[x]GEO[yy]	/tomcat/deployments/geoserver/geoserver-2.6.x-acs-latest.war			
Machine	Servlet Directory							
[x]GEO[yy]	/tomcat/deployments/geoserver/geoserver-2.6.x-acs-latest.war							
Running as	tomcat							
Service Start	Automatically started by Tomcat start							
Service Stop	Automatically stopped by Tomcat stop							
Service Status	Use Tomcat utilities							
Input	A set of data in XML format sent via POST by FOP Report Generator							
Validation & Processing	This servlet combines the received data with some extra calls to DeeGree, GeoServer and VCat services. The PDF creation is done via Jasper.							
Output	The generated PDF file is returned to the FOP Report Generator that, in turn, will store it into the Alerting DB.							
Contingency	For additional information, please consult section 3.4.1							
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td colspan="2">Managed via specific COTS GUI (see <a href="http://docs.geoserver.org/">http://docs.geoserver.org/</a>)</td></tr></table>	Path	File name	Managed via specific COTS GUI (see <a href="http://docs.geoserver.org/">http://docs.geoserver.org/</a> )				
Path	File name							
Managed via specific COTS GUI (see <a href="http://docs.geoserver.org/">http://docs.geoserver.org/</a> )								
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/geoserver_data/logs</td><td>geoserver*.log</td></tr><tr><td>&lt;TOMCAT_INSTALL_DIR&gt;/logs</td><td>catalina.out</td></tr></table>	Path	File name	/geoserver_data/logs	geoserver*.log	<TOMCAT_INSTALL_DIR>/logs	catalina.out	
Path	File name							
/geoserver_data/logs	geoserver*.log							
<TOMCAT_INSTALL_DIR>/logs	catalina.out							

### 4.19.1 Special configuration parameter

Customised parameters for the csnd-dc are:

```
<context-param>
<param-name>GEOSERVER_DATA_DIR</param-name>
<param-value>/geoserver_data</param-value>
</context-param>
<context-param>
```

where/geoserver\_data is a NFS mounted directory. The directory is exposed by the NFS appliance. The mounting point of the directory is in the/etc/fstab file.

## 4.20 HTTPD - WLS

<b>Description</b>	<p>Each business node hosts both the Weblogic server and the apache server. The former is used for all java components, such as Deegree, Jou and FinSys back-end, etc., while the latter is used for all PHP-based components (GIS Viewer, POR, Alerting, etc).</p> <p>PHP-based calls are easily identified because they start either with /javabridge or /sibilla-static.</p> <p>Hence, that is logic used by this apache server:</p> <ul style="list-style-type: none"> <li>• route non-php-based calls to weblogic</li> <li>• act as a weblogic load balancer</li> </ul> <p>The HTTPD Daemon is the Apache Server Project. It is the standard web server distributed with the Red Hat Distribution. Please refer to the Red Hat Manuals for further information.</p>						
<b>Location</b>	<table> <tr> <th>Machine</th><th>Executable</th></tr> <tr> <td>[x]WLS[yy]</td><td>/usr/sbin/httpd</td></tr> </table>	Machine	Executable	[x]WLS[yy]	/usr/sbin/httpd		
Machine	Executable						
[x]WLS[yy]	/usr/sbin/httpd						
<b>Running as</b>	apache						
<b>Service Start</b>	service httpd start						
<b>Service Stop</b>	service httpd stop						
<b>Service Status</b>	service httpd status						
<b>Input</b>	<p>Any file in these directories:</p> <p>/var/www/html/sibilla-static</p> <p>/var/www/html/sibilla-dynamic (mapped on the alias /acs/javabridge)</p>						
<b>Validation &amp; Processing</b>	HTML/CSS pages and graphic objects (gif, png) are served normally, while PHP pages are processed via the PHP interpreter						
<b>Output</b>	Requested file						
<b>Contingency</b>	If the server is down, the graphic interfaces are not responding.						
<b>Configuration File</b>	<p>Exposed directories and alias are defined in /etc/httpd/conf.d/csndc_httpd.conf</p> <p>Moreover, there are also the following configuration files:</p> <table> <tr> <th>Path</th><th>File name</th></tr> <tr> <td>/etc/httpd/conf</td><td>httpd.conf</td></tr> <tr> <td>/etc/httpd/conf.d</td><td>*.conf</td></tr> </table>	Path	File name	/etc/httpd/conf	httpd.conf	/etc/httpd/conf.d	*.conf
Path	File name						
/etc/httpd/conf	httpd.conf						
/etc/httpd/conf.d	*.conf						
<b>Log File</b>	<table> <tr> <th>Path</th><th>File name</th></tr> <tr> <td>/var/log/httpd</td><td>error_log</td></tr> </table>	Path	File name	/var/log/httpd	error_log		
Path	File name						
/var/log/httpd	error_log						

### 4.20.1 Configuration file

Httpd.conf content is the following:

```
# Apache load balancer for Weblogic [minimum] configuration file per domain
# See man httpd for more information (follow urls) and
# http://download.oracle.com/docs/cd/E15523_01/web.1111/e14395/plugin_params.htm
# init.d script is based on installed one heavily customized
#
# History:
# Apr 2011: initial version specific for CSN, VCL
```

```
# -----
# Look for the DOMAIN section below, remaining sections should not be changed.
# -----
# GLOBAL environment directives
# Only show minimum
ServerTokens Prod
ServerSignature Off
HostnameLookups Off
# Owner and group that runs httpd
User apache
Group apache
# Timeout value recommended
Timeout 120
# Allow unlimited persistent connections?
KeepAlive off
MaxKeepAliveRequests 0
# Update or define defaults
ServerAdmin root@localhost
DocumentRoot "/var/www/html"
AddDefaultCharset UTF-8
# Debug, in case of need
# LogLevel debug

# Load WLS load-balancing module, copied from the most recent version of WLS
# /oracle/*/wlserver*/server/plugin/linux/x86_64/modl_wl_<ApacheVersion>.so
# OR BETTER use latest x86-64 v1.1 version, downloaded from metalink
LoadModule weblogic_module modules/mod_wl.so

# -----
# DOMAIN specific environment directives
Listen 81

# Modules/directives needed by php.conf
LoadModule authz_host_module modules/mod_authz_host.so
LoadModule mime_module modules/mod_mime.so
LoadModule dir_module modules/mod_dir.so
LoadModule log_config_module modules/mod_log_config.so
LoadModule setenvif_module modules/mod_setenvif.so
TypesConfig /etc/mime.types
# Modules/directives needed by CSN .conf files
LoadModule alias_module modules/mod_alias.so
# Modules/directives needed by other conf.d
LoadModule proxy_module modules/mod_proxy.so

Include conf.d/*.conf

# Location of config files, error, etc. files: standard
ServerRoot "/etc/httpd"

# Unique per project PID file: standard
PidFile run/httpd.pid

# You must define a servername, so use the <domain>
```

```
ServerName csn

# Everything NOT /javabridge is redirected to Weblogic
<Location ~ "^/(csndc-finsys-ws|csndc-jou-ws|report|deegree-wfs|geoserver|qbridge|vcat-
csw)/.*" >
    SetHandler weblogic-handler
WebLogicCluster xwls09.emsa.local:7021,xwls10.emsa.local:7021
</Location>
```

## 4.21 Vcat-csw

Description	VCAT-CSW (Catalogue Service) is implemented with DeeGree. Deegree is a comprehensive geospatial software package with implementations of <a href="#">OGC</a> Web Services like CSW, a geoportal, a desktop application, security mechanisms, and various tools for geospatial data processing and management. It is open source ( <a href="#">LGPL</a> ), Java, standards-compliant ( <a href="#">OGC</a> , <a href="#">ISO</a> ) and an <a href="#">OSGeo</a> project.					
	It is used to store and retrieve all packages that have been provided by the Service Providers.					
Location	<table><tr><th>Machine</th><th>Servlet Directory</th></tr><tr><td>[x]WLS[yy]</td><td>/wl_domains/csn/deployments/vcatcsw/vcat-csw</td></tr></table>	Machine	Servlet Directory	[x]WLS[yy]	/wl_domains/csn/deployments/vcatcsw/vcat-csw	
Machine	Servlet Directory					
[x]WLS[yy]	/wl_domains/csn/deployments/vcatcsw/vcat-csw					
Running as	oracle					
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console					
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console					
Service Status	Use WebLogic Administration Console					
Input	A CSW-OGC compliant call					
Validation & Processing	An OGC compliance check is performed. Packages are retrieved via the ISM					
Output	The requested package					
Contingency	This service is called by: <ul style="list-style-type: none"><li>• WebCat Feeder for data store</li><li>• GIS VIEWER for data retrieval</li></ul> If the service is unavailable the caller will issue an error on its log file.					
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/deployments/vcatcsw/vcat-csw/WEB-INF</td><td>web.xml</td></tr></table>	Path	File name	/wl_domains/csn/deployments/vcatcsw/vcat-csw/WEB-INF	web.xml	
Path	File name					
/wl_domains/csn/deployments/vcatcsw/vcat-csw/WEB-INF	web.xml					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/servers/csnServers/log</td><td>csnServer.log csnServer.out</td></tr></table>	Path	File name	/wl_domains/csn/servers/csnServers/log	csnServer.log csnServer.out	
Path	File name					
/wl_domains/csn/servers/csnServers/log	csnServer.log csnServer.out					

## 4.22 JOWWS

<b>Description</b>	<p>The JOW webservice is the business tier part of the JOW Component. The JOW (short for journaling) logs data sent to and from the Data Centre. It logs what information is received or sent by other components. Most of the information logged comes from the POR: frame, order, license, and product metadata. Alerts sent by Alerting are also logged, as well as product delivery to Coastal States.</p> <p>It allows viewing this logged information through reports available on the presentation tier of the JOW component, the JOW Portlet.</p> <p>The JOW web service records metadata about data received or sent by the Data Centre. In the case of frames and products, it also allows manipulation of this data by EMSA if needed. The data that can be changed is the frame quality, and the delivery delays of products. These are the values that have an impact on the price calculation for the products received, and so must be able to be changed. All changes made are logged by JOW. It is also possible to add comments to frames, and providers can also contest frames. All these operations are done in the presentation tier part of the JOW component, and are logged by the JOW webservice.</p> <p>While it is the presentation tier part of JOW (the JOW Portlet) that the users interact with, it is the JOW webservice that contains all the business logic. The portlet simply calls the desired operation on the JOW webservice, depending on it for retrieving, adding or modifying data.</p> <p>The JOW webservice is also responsible for sending relevant frame and product information to the Financial System to initiate financial processing.</p>				
<b>Location</b>	<table border="1"> <thead> <tr> <th>Machine</th><th>Servlet Directory</th></tr> </thead> <tbody> <tr> <td>[x]WLS[yy]</td><td>/wl_domains/csn/deployments/csndc-report/csndc-report</td></tr> </tbody> </table>	Machine	Servlet Directory	[x]WLS[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report
Machine	Servlet Directory				
[x]WLS[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report				
<b>Running as</b>	oracle				
<b>Service Start</b>	Automatically started by WebLogic Manually, use WebLogic Administration Console				
<b>Service Stop</b>	Automatically stopped by WebLogic Manually, use WebLogic Administration Console				
<b>Service Status</b>	Use WebLogic Administration Console <p>The service status can also be checked by testing the following URL:  <a href="http://[x]wls[yy]:7021/csndc-jou-ws/csndc-finsys-ws?WSDL">http://[x]wls[yy]:7021/csndc-jou-ws/csndc-finsys-ws?WSDL</a></p> <p>Where x: p for production; q for pre-production; t for test environment            And yy: 09 or 10</p>				
<b>Input</b>	<p>The JOW webservice receives data from other components through JMS messages that are published on the JOWWS message queue. Only messages for JOW are sent to this queue, and the JOW webservice is the only consumer. The JMS messages used are text messages containing XML.</p> <p>Additional data, like user comments to frames, are received through web service calls made by the JOW portlet. These exposed webservice methods are protected with basic authentication (using a password digest).</p>				
<b>Validation &amp; Processing</b>	Information about frames and products is sent to the Financial System when the EMSA Service Desk has indicated that they are ready for financial processing. The JOW webservice is responsible for sending all necessary				

	information for price calculation to the Financial System, and does so through SOAP calls to the Financial System webservice.	
Output	The generated PDF file is returned to the FOP Report Generator that, in turn, will store it into the Alerting DB.	
Contingency	Any error is logged.	
Configuration Files	Path	File name
	/etc/samba	smb.conf
Log File	Path	File name
	/wl_domains/csn/deployments/deployments/csnhome/logs	csndc-jou-ws.log

### 4.22.1 Interfaces

Being a webservice, JOU defines and exposes its WSDL, which can be seen at <hostname>/csndc-jou-ws/csndc-jou-ws?WSDL.

## 4.23 JOU Portlet

Description	<p>The presentation tier part of the JOU component is responsible for displaying the data collected by the JOU business tier.</p> <p>The JOU portlet displays the data logged by the JOU webservice to users. It does so through a number of reports. One of these reports, the Service Report, is interactive and allows users to change the logged data (that impacts price calculations), add comments, or contest frames. These features are tools for both the providers and the Service Desk, so dialogs can be established, and data adjusted as needed. The other reports are static and only for data display.</p> <p>The JOU portlet generates reports. In the case of the Service Reports, it allows providers to contest frames and add comments to them. EMSA can use these functionalities and also change the values that impact on price calculations (frame quality and product delivery delays). In the case of other reports (but not Service Report), it also allows the export to Excel and PDF formats.</p>					
Location	<table><tr><th>Machine</th><th>Servlet Directory</th></tr><tr><td>[x]WGT[yy]</td><td>/wl_domains/csn/deployments/csndc-report/csndc-report</td></tr></table>	Machine	Servlet Directory	[x]WGT[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report	
Machine	Servlet Directory					
[x]WGT[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report					
Running as	oracle					
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console					
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console					
Service Status	Use WebLogic Administration Console					
Input	The JOU portlet only communicates with the JOU webservice, through SOAP webservice calls, secured by basic authentication (with password digest).					
Validation & Processing	The JOU portlet only uses the SIB_* tables for user authorization and the Reports and ReportCategory tables to store what reports are available.					
Output	GUI for JOU					
Contingency	N/A					
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/etc/samba</td><td>smb.conf</td></tr></table>	Path	File name	/etc/samba	smb.conf	
Path	File name					
/etc/samba	smb.conf					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/deployments/deployments/csnhome/logs</td><td>csndc-jou-portlet.log</td></tr></table>	Path	File name	/wl_domains/csn/deployments/deployments/csnhome/logs	csndc-jou-portlet.log	
Path	File name					
/wl_domains/csn/deployments/deployments/csnhome/logs	csndc-jou-portlet.log					

## 4.24 COM Portlet

Description	<p>This is the communication component, its main purpose is to facilitate the communication between the end users and EMSA.</p> <p>This component is composed of 4 separate components, liferay portlets:</p> <ul style="list-style-type: none"><li>• A wiki which allows the users with the required permissions to add knowledge pages or alter those pages so they can be shared among all users.</li><li>• A Calendar which allows users with the required permissions to add events inviting other users, being then notified of the event when its time approaches.</li><li>• A Forum which allows users to have discussions on the services provided by the CSNDC.</li><li>• A document library which allows users to upload and share documents up to 5MB in size.</li></ul>											
Location	<table><tr><th>Machine</th><th>Servlet Directory</th></tr><tr><td>[x]WGT[yy]</td><td>/wl_domains/csn/deployments/csndc-report/ csndc-report</td></tr></table>	Machine	Servlet Directory	[x]WGT[yy]	/wl_domains/csn/deployments/csndc-report/ csndc-report							
Machine	Servlet Directory											
[x]WGT[yy]	/wl_domains/csn/deployments/csndc-report/ csndc-report											
Running as	oracle											
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console											
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console											
Service Status	Use WebLogic Administration Console											
Input	Data provided by the user											
Validation & Processing	<p>The main function of this component is data storage and retrieval.</p> <p>The component also sends e-mails based on some business rules, being these, when a user edits some content, the administrators are notified, and on the calendar sub-component when an event approaches a reminder is sent to the invited users.</p> <p>All the sub-components behave the same way, when a user wishes to insert new data he does so through the user interface. The data is then stored on the database ready for retrieval when needed. To avoid SQL injection attacks all strings are escaped.</p> <p>The calendar component also has a running thread which periodically checks if there is a need to send a new reminder.</p>											
Output	COM GUIs											
Contingency	N/A											
Configuration Files	N/A											
Log Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/deployments/d</td><td>csndc-com-wiki-portlet.log</td></tr><tr><td>eployments/csnhome/logs</td><td>csndc-com-forum-portlet.log</td></tr><tr><td></td><td>csndc-com-calendar-portlet.log</td></tr><tr><td></td><td>csndc-com-dlibrarv-portlet.log</td></tr></table>	Path	File name	/wl_domains/csn/deployments/d	csndc-com-wiki-portlet.log	eployments/csnhome/logs	csndc-com-forum-portlet.log		csndc-com-calendar-portlet.log		csndc-com-dlibrarv-portlet.log	
Path	File name											
/wl_domains/csn/deployments/d	csndc-com-wiki-portlet.log											
eployments/csnhome/logs	csndc-com-forum-portlet.log											
	csndc-com-calendar-portlet.log											
	csndc-com-dlibrarv-portlet.log											

## 4.25 FinSysWS

Description	This component is responsible to handle the financial information, making the calculations needed for each step of the tasking process, as well as manage the financial information relating to providers commitments and contracts. The main functions for this component are: <ul style="list-style-type: none"><li>• Calculation of prices for each frame</li><li>• Calculate the cost impact for each planned task</li><li>• Provide the data retrieval and calculation for the several reports needed by the end users.</li><li>• Generate and send signed task forms by e-mail</li><li>• Generate and send Financial Reports</li><li>• Generate and send Invoice</li></ul>					
Location	<table><tr><th>Machine</th><th>Servlet Directory</th></tr><tr><td>[x]WLS[yy]</td><td>/wl_domains/csn/deployments/csndc-report/csndc-report</td></tr></table>	Machine	Servlet Directory	[x]WLS[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report	
Machine	Servlet Directory					
[x]WLS[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report					
Running as	oracle					
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console					
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console					
Service Status	Use WebLogic Administration Console  The service status can also be checked by testing the following URL: <a href="http://[x]wls[yy]:7021/csndc-finsys-ws/csndc-finsys-ws?WSDL">http://[x]wls[yy]:7021/csndc-finsys-ws/csndc-finsys-ws?WSDL</a>  Where x: p for production; q for pre-production; t for test environment And yy: 09 or 10					
Input	This component takes as Input the configuration files which should be set as per the installation manual. Additionally some data is received via JMS messages.					
Validation & Processing	When the system receives a JMS message the information is retrieved from the message, also validating the format, the information contained on the message is then stored so it can then be processed later. This process escapes all the strings received in order to avoid SQL injection.					
Output	XML output for FinSys GUI					
Contingency	N/A					
Configuration Files	N/A					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/deployments/deployments/csnhome/logs</td><td>csndc-finsys-ws.log</td></tr></table>	Path	File name	/wl_domains/csn/deployments/deployments/csnhome/logs	csndc-finsys-ws.log	
Path	File name					
/wl_domains/csn/deployments/deployments/csnhome/logs	csndc-finsys-ws.log					

### 4.25.1 JMS Messages

The accepted messages are described by the following template XML files:

- For the Cost Impact Estimation

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<TaskMessage>
```

```
  <MessageID>{Unique Message Identifier}</MessageID>
```

```
  <TASK>
```

```
    <Identifier>{The task Identifier}</Identifier>
```

```
    <TaskFormNumber>{The task form number if exists}</TaskFormNumber>
```

```
    <TaskStatus>{The task status if exists}</TaskStatus>
```

```
    <Description>{The task description if exists}</Description>
```

```
      <Scenes>
```

```
        <Scene>
```

```
          <ServiceType>{The Service Type}</ServiceType>
```

```
          <SensorMode>{The desired sensor mode}</SensorMode>
```

```
          <Platform>{Unique platform identifier}</Platform>
```

```
          <FrameID>{Unique frame identifier}</FrameID>
```

```
          <TaskingArealD>{Unique tasking area identifier}</TaskingArealD>
```

```
          <TaskingType>{Unique tasking type identifier}</TaskingType>
```

```
          <ServiceProviderID>{Unique service provider identifier}</ServiceProviderID>
```

```
          <LicenseProviderID>{Unique license provider identifier}</LicenseProviderID>
```

```
          <NotificationType>{Notification type identifier}</NotificationType>
```

```
          <CustomerID>{Unique customer identifier}</CustomerID>
```

```
          <AcquisitionTime>{the utc start of sensing tpe}</AcquisitionTime>
```

```
          <AcquisitionLength>{Acquisition length in kilometers}</AcquisitionLength>
```

```
          <StatusID>{frame status if any}</StatusID>
```

```
        </Scene>
```

```
      </Scenes>
```

```
    </TASK>
```

```
</TaskMessage>
```

- For the tasking information email

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<ReportInfo>
```

```
  <Year>{Task Year}</Year>
```

```
  <Month>{Task Month}</Month><!-- 1 to 12 -->
```

```
  <TaskIdentifier>{Task Identifier}</TaskIdentifier>
```

```
  <MailListTo><!-- List of mails to be on the TO field -->
```

```
  <Email>{Email Address}</Email>
```

```
</MailListTo>
```

```
  <MailListCC><!-- List of mails to be on the CC field -->
```

```
  <Email>{Email Address}</Email>
```

```
</MailListCC>
```

```
</ReportInfo>
```

- For the Task Form Generation:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<ReportInfo>
```

```
  <Year>{Task Year}</Year>
```

```
  <Month>{Task Month}</Month><!-- 1 to 12 -->
```

```
  <TaskIdentifier>{Task Identifier}</TaskIdentifier>
```

```
  <Provider>{Provider Identifier}</Provider><!-- Can be Service or Licence Provider -->
```

```
  <UserNameAO>{Authorizing Officer UserName}</UserNameAO>
```

```
  <MailListTo><!-- List of mails to be on the TO field -->
```

```
  <Email>{Email Address}</Email>
```

```
</MailListTo>
```

```

<MailListCC><!-- List of mails to be on the CC field -->
<Email>{Email Address}</Email>
</MailListCC>
</ReportInfo>

```

- Single Scene status change

```

<?xml version="1.0" encoding="UTF-8"?>
<SceneMessage>
  <MessageID>2010-10-08T16:47:38+02:00</MessageID>
  <Scene>
    <ServiceType>{The Service Type}</ServiceType>
    <SensorMode>{The desired sensor mode}</SensorMode>
    <Platform>{Unique platform identifier}</Platform>
    <FrameID>{Unique frame identifier}</FrameID>
    <TaskingAreaID>{Unique tasking area identifier}</TaskingAreaID>
    <TaskingType>{Unique tasking type identifier}</TaskingType>
    <ServiceProviderID>{Unique service provider identifier}</ServiceProviderID>
    <LicenseProviderID>{Unique license provider identifier}</LicenseProviderID>
    <NotificationType>{Notification type identifier}</NotificationType>
    <CustomerID>{Unique customer identifier}</CustomerID>
    <AcquisitionTime>{the utc start of sensing tpe}</AcquisitionTime>
    <AcquisitionLength>{Acquisition length in kilometers}</AcquisitionLength>
    <StatusID>{frame status if any}</StatusID>
  </Scene>
</SceneMessage>

```

#### 4.25.2 Communications

This component exposes a secure web service interface for usage from the JOU Component and the FinSys component.

This interface can be accessed from

[http://<business\\_layer\\_url>/csndc-finsys-ws/csndc-finsys-ws?WSDL](http://<business_layer_url>/csndc-finsys-ws/csndc-finsys-ws?WSDL)

## 4.26 FinSys PORTLET

Description	This component is the user interface for the Financial System. The FinSys component is a portlet which is deployed into Liferay providing a way for the user to interact with the financial system. This component is based on IceFaces/JavaServerFaces Technologies and JasperReports in order to provide the information needed for the users. This component can be accessed via the POR from which a Cost Impact function is displayed to the user or directly from the GIS VIEWER where the user will access the “default” interface.					
Location	<table><tr><th>Machine</th><th>Servlet Directory</th></tr><tr><td>[x]WGT[yy]</td><td>/wl_domains/csn/deployments/csndc-report/csndc-report</td></tr></table>	Machine	Servlet Directory	[x]WGT[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report	
Machine	Servlet Directory					
[x]WGT[yy]	/wl_domains/csn/deployments/csndc-report/csndc-report					
Running as	oracle					
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console					
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console					
Service Status	Use WebLogic Administration Console					
Input	User Events					
Validation & Processing	This component communicates with the FinSysWS via Secure Web Services on a specific interface, sending all user events and receiving the actions to be performed on the GUI.					
Output	The generated PDF file is returned to the FOP Report Generator that, in turn, will store it into the Alerting DB.					
Contingency	N/A					
Configuration Files	N/A					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/deployments/csnhome/logs</td><td>csndc-finsys-portlet.log</td></tr></table>	Path	File name	/wl_domains/csn/deployments/csnhome/logs	csndc-finsys-portlet.log	
Path	File name					
/wl_domains/csn/deployments/csnhome/logs	csndc-finsys-portlet.log					

## 4.27 GIS VIEWER

Description	<p>The GIS Viewer application is the backend that allows the Flex front end to explore the scenes and oil spills repositories, performing basic and advanced queries.</p> <p>The web application is based on the Sibilla/Sinbad framework by ACS</p>	
Location	Machine	Component Directory
	[x]WLS[yy]	/var/www/html/SibillaWebSite_SINBAD_CSNDC
Running as	apache	
Service Start	service httpd start	
Service Stop	service httpd stop	
Service Status	service httpd status	
Input	A request from the Flex application	
Validation & Processing	The AMF call is decoded and then some PHP code is executed.	
Output	The result is AMF encoded and returned to the Flex application.	
Contingency	N/A	
Configuration Files	Path	File name
	/var/www/html/SibillaWebSite_SINBAD_CSNDC/config	sinbad.ini ext_sinbad.ini websecurity.ini *.xml
	/var/www/html/SibillaWebSite_SINBAD_CSN_DC/web/sinbad_csn_dc_config	
Log File	Path	File name
	/var/www/html/logs	wup_yyyy_mm_dd.log websec_yyyy_mm_dd.log

### 4.27.1 Additional information on configuration files

#### 4.27.1.1 websecurity.ini

In the GIS Viewer application is present a file for security settings. The file is `/var/www/html/SibillaWebSite_SINBAD_CSN_DC/config/websecurity.ini`. It is divided in sections marked by square brackets (i.e. [application]). It enables/disables security, contains security log level information and contains a white list of urls reachable by the application.

#### 4.27.1.2 Map configuration files

GIS Viewer has a graphical component that allows to display maps and navigate on them (pan, zoom, modify projection, select area of interest etc.). The map component is configured through some xml files placed in the web directory:

```
/var/www/html/SibillaWebSite_SINBAD_CSN_DC/web/sinbad_csn_dc_config
```

N.B.: To make modifications to these files effective, the operator must launch the following script on all the [x]WLS[yy] machine

```
/var/www/html/emsupport_files/installation/wls/emsapache_customizations.sh
```

## 4.28 POR

Description	The POR interface allows EMSA's staff to: <ul style="list-style-type: none"><li>• Upload Coastal States' requests for scenes acquisition</li><li>• Upload acquisition plans from Satellite Operators</li><li>• Optimise the shopping cart</li><li>• Start a confirmation workflow</li></ul> <p>EMSA Staff, Coastal States, Service Providers and Satellite Operators are all involved in the confirmation workflow.</p> <p>POR communicates with JOU and Financial System, providing all the necessary information for budget computation and generation of tasking forms.</p> <p>The web application is based on the Sibilla framework by ACS</p>									
Location	<table><tr><th>Machine</th><th>Component</th><th>Directory</th></tr><tr><td>[x]WLS[yy]</td><td></td><td>/var/www/html/ SibillaWebSite_EMSA_POR</td></tr></table>	Machine	Component	Directory	[x]WLS[yy]		/var/www/html/ SibillaWebSite_EMSA_POR			
Machine	Component	Directory								
[x]WLS[yy]		/var/www/html/ SibillaWebSite_EMSA_POR								
Running as	apache									
Service Start	service httpd start									
Service Stop	service httpd stop									
Service Status	service httpd status									
Input	A request from the Flex application;									
Validation & Processing	The AMF call is decoded and then some PHP code is executed.									
Output	The result is AMF encoded and returned to the Flex application.									
Contingency	N/A									
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/</td><td>emsa_por.ini</td></tr><tr><td>SibillaWebSite_EMSA_POR/emsa_por.res/</td><td></td></tr><tr><td>config</td><td></td></tr></table>	Path	File name	/var/www/html/	emsa_por.ini	SibillaWebSite_EMSA_POR/emsa_por.res/		config		
Path	File name									
/var/www/html/	emsa_por.ini									
SibillaWebSite_EMSA_POR/emsa_por.res/										
config										
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/logs</td><td>por yyyy mm dd.log</td></tr></table>	Path	File name	/var/www/html/logs	por yyyy mm dd.log					
Path	File name									
/var/www/html/logs	por yyyy mm dd.log									

### 4.28.1 Additional information on configuration files

#### 4.28.1.1 Map configuration files

POR has a graphical component that allows to display maps and navigate on them (pan, zoom, modify projection, select area of interest etc.). The map component is configured through some xml files placed in the web directory:

```
/var/www/html/SibillaWebSite_EMSA_POR/emsa_por_config
```

These files are shared with the Alerting Admin GUI.

N.B.: To make modifications to these files effective, the operator must launch the following script on all the [x]WLS[yy] machine

```
/var/www/html/emsupport_files/installation/wls/emsapache_customizations.sh
```

## 4.29 Alerting Admin GUI

Description	The Alerting Admin GUI allows EMSA 's staff to Upload Coastal States' alert region Upload all files related to alerting (such as TSS, Wrecks, Rigs, etc.) Browse through all the generated alerts Verify the list of recipient for any given alert report and the transmission status  The web application is based on the Sibilla/Sinbad framework by ACS		
Location	Machine	Component	Directory
	[x]WLS[yy]		/var/www/html/SibillaWebSite_SINBAD_EMSA_OAS
Running as	apache		
Service Start	service httpd start		
Service Stop	service httpd stop		
Service Status	service httpd status		
Input	A request from the Flex application		
Validation & Processing	The AMF call is decoded and then some PHP code is executed.		
Output	The result is AMF encoded and returned to the Flex application.		
Contingency	N/A		
Configuration Files	Path	File name	
	/var/www/html/SibillaWebSite_SINBAD_EM	sinbad.ini	
	SA_OAS/config	ext sinbad.ini	
Log File	Path	File name	
	/var/www/html/logs	alert_admin yyyy mm dd.log	

### 4.29.1 Additional information on configuration files

#### 4.29.1.1 Map configuration files

Alerting Admin GUI has a graphical component that allows to display maps and navigate on them (pan, zoom, modify projection, select area of interest etc.). The map component is configured through some xml files placed in the POR web directory:

```
/var/www/html/SibillaWebSite_EMSA_POR/emsa_por_config
```

These files are shared with POR.

N.B.: To make modifications to these files effective, the operator must launch the following script on all the [x]WLS[yy] machine

```
/var/www/html/emsa_support_files/installation/wls/emsa_apache_customizations.sh
```

### 4.30 Alerting Communication Matrix

Description	Alerting Communication Matrix allows: Emsa's staff to setup the rules for the computation of the alerting level Coastal States to define, for each of their users, the way they will receive the generated alert, depending on the alert levels.  The web application is based on the Sibilla framework by ACS							
Location	<table><tr><th>Machine</th><th>Component</th><th>Directory</th></tr><tr><td>[x]WLS[yy]</td><td></td><td>/var/www/html/SibillaWebSite_EMSA_OAS_ADMIN</td></tr></table>	Machine	Component	Directory	[x]WLS[yy]		/var/www/html/SibillaWebSite_EMSA_OAS_ADMIN	
Machine	Component	Directory						
[x]WLS[yy]		/var/www/html/SibillaWebSite_EMSA_OAS_ADMIN						
Running as	apache							
Service Start	service httpd start							
Service Stop	service httpd stop							
Service Status	service httpd status							
Input	A request from the Flex application							
Validation & Processing	The AMF call is decoded and then some PHP code is executed.							
Output	The result is AMF encoded and returned to the Flex application.							
Contingency	N/A							
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/SibillaWebSite_EMSA_OAS_</td><td>oas_admin.ini</td></tr><tr><td>ADMIN/oas_admin.res/config</td><td>ext_oas_admin.ini</td></tr></table>	Path	File name	/var/www/html/SibillaWebSite_EMSA_OAS_	oas_admin.ini	ADMIN/oas_admin.res/config	ext_oas_admin.ini	
Path	File name							
/var/www/html/SibillaWebSite_EMSA_OAS_	oas_admin.ini							
ADMIN/oas_admin.res/config	ext_oas_admin.ini							
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/logs</td><td>alert_matrix_yyyy_mm_dd.log</td></tr></table>	Path	File name	/var/www/html/logs	alert_matrix_yyyy_mm_dd.log			
Path	File name							
/var/www/html/logs	alert_matrix_yyyy_mm_dd.log							

### 4.31 Standing Order

Description	This component is divided into 2 subcomponents: Generator: Triggered by the arrival of a new package this component computes all the matching standing order queries and prepares the products to be delivered Notifier: Delivers newly arrived products to subscribers									
Location	<table><tr><th>Machine</th><th>Component Directories</th></tr><tr><td>[x]WLS[yy]</td><td>/var/www/html/pds2_import_emsa /var/www/html/pds2_import_emsa_csndc</td></tr></table>	Machine	Component Directories	[x]WLS[yy]	/var/www/html/pds2_import_emsa /var/www/html/pds2_import_emsa_csndc					
Machine	Component Directories									
[x]WLS[yy]	/var/www/html/pds2_import_emsa /var/www/html/pds2_import_emsa_csndc									
Running as	opemsa									
Service Start	service crond start									
Service Stop	service crond stop									
Service Status	service crond status									
Input	The arrival of a new package									
Validation & Processing	The new package is checked against the stored Standing Order subscriptions									
Output	Distribution of subscribed products									
Contingency	N/A									
Configuration Files	<table><tr><th>Path</th><th>File names</th></tr><tr><td>/var/www/html/pds2_import_emsa_csndc/c</td><td>pds2_import.ini</td></tr><tr><td>onfig</td><td>ext_pds2_import.ini</td></tr><tr><td></td><td>pds2_notifier.ini</td></tr></table>	Path	File names	/var/www/html/pds2_import_emsa_csndc/c	pds2_import.ini	onfig	ext_pds2_import.ini		pds2_notifier.ini	
Path	File names									
/var/www/html/pds2_import_emsa_csndc/c	pds2_import.ini									
onfig	ext_pds2_import.ini									
	pds2_notifier.ini									
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/usr/acs/log</td><td>pds2_import_csndc_yyyy_mm_dd.log</td></tr><tr><td></td><td>pds2_notifier_csndc_yyyy_mm_dd.log</td></tr></table>	Path	File name	/usr/acs/log	pds2_import_csndc_yyyy_mm_dd.log		pds2_notifier_csndc_yyyy_mm_dd.log			
Path	File name									
/usr/acs/log	pds2_import_csndc_yyyy_mm_dd.log									
	pds2_notifier_csndc_yyyy_mm_dd.log									

## 4.32 Alerting EMailer

Description	Alerting EMailer is a daemon that sends the Alert Reports generated by the FOP Report Generator to all the Coastal States' users according to the communication matrix defined by the Alerting Communication Matrix GUI.  This daemon is a PHP script launched every minute by the CRON daemon.					
Location	<table><tr><th>Machine</th><th>Component Directory</th></tr><tr><td>[x]WLS[yy]</td><td>/var/www/html/emsa_csn_scheduler/engine/ecs_main_engine.php</td></tr></table>	Machine	Component Directory	[x]WLS[yy]	/var/www/html/emsa_csn_scheduler/engine/ecs_main_engine.php	
Machine	Component Directory					
[x]WLS[yy]	/var/www/html/emsa_csn_scheduler/engine/ecs_main_engine.php					
Running as	opemsa					
Service Start	service crond start					
Service Stop	service crond stop					
Service Status	service crond status					
Input	List of new alerts on the Alerting DB					
Validation & Processing	For each alert and Coastal State affected, the daemon sends the Alerting Report to the Coastal States' users according to the communication matrix.  As this process is running on each [x]WLS[yy] machine, there a special book & release mechanism to avoid duplication of transmissions. Moreover, there is a dedicated retry mechanism to cope with temporary unavailability of the transmission server (such as Mail Servers, SMS/MMS web services, etc.)					
Output	Messages to the configured users					
Contingency	Once a message has been booked by one of the nodes, if the transmission is not initiated within 2 minutes, the booking is released. This is to cope with a node going down right after having booked a set of alert messages. In this case, the other node will process the messages.					
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/emsa_csn_scheduler/config</td><td>ecs.ini</td></tr></table>	Path	File name	/var/www/html/emsa_csn_scheduler/config	ecs.ini	
Path	File name					
/var/www/html/emsa_csn_scheduler/config	ecs.ini					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/logs</td><td>emsa_notification_scheduler_yyyy mm dd.log</td></tr></table>	Path	File name	/var/www/html/logs	emsa_notification_scheduler_yyyy mm dd.log	
Path	File name					
/var/www/html/logs	emsa_notification_scheduler_yyyy mm dd.log					

### 4.33 MD5 Service

Description	<p>This SOAP web service is used by the Service Providers to announce the transmission of a data package. This allows enforcement of the SLA by removing any dependency on the transmission time. In fact, Service Providers have to announce each package by calling this service and providing the filename of the package and its MD5 hash.</p> <p>This web service will store the value in a table of the POR DB. Once the package has arrived, the PreInventory will check if the package sent has the same MD5 hash as announced. This information is sent to the JOU via JMS.</p>							
Location	<table><tr><th>Machine</th><th>Component</th><th>Directory</th></tr><tr><td>[x]WLS[yy]</td><td></td><td>/var/www/html/emsa_csn_hash_server/engine/csn_hash_webservice.php</td></tr></table>	Machine	Component	Directory	[x]WLS[yy]		/var/www/html/emsa_csn_hash_server/engine/csn_hash_webservice.php	
Machine	Component	Directory						
[x]WLS[yy]		/var/www/html/emsa_csn_hash_server/engine/csn_hash_webservice.php						
Running as	apache							
Service Start	service httpd start							
Service Stop	service httpd stop							
Service Status	service httpd status							
Input	A SOAP call from the Service Provider							
Validation & Processing	<p>The process does the following:</p> <ul style="list-style-type: none"><li>• Checks whether the filename and hash have already been announced</li><li>• Stores the filename and hash on the POR DB</li><li>• Upon receipt of the last package for a given scene, the process checks if the list of packages sent correspond to that sent on the last SOAP call</li></ul>							
Output	<p>Acknowledge message if the pair filename-md5 was not announced before, otherwise an error message.</p> <p>List of packages missing or in excess, in case of the last package message.</p>							
Contingency	N/A							
Configuration Files	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/emsa_csn_hash_server/config</td><td>csn_hash.ini</td></tr></table>	Path	File name	/var/www/html/emsa_csn_hash_server/config	csn_hash.ini			
Path	File name							
/var/www/html/emsa_csn_hash_server/config	csn_hash.ini							
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/var/www/html/logs</td><td>csn_hash yyyy mm dd.log</td></tr></table>	Path	File name	/var/www/html/logs	csn_hash yyyy mm dd.log			
Path	File name							
/var/www/html/logs	csn_hash yyyy mm dd.log							

#### 4.33.1 Service WSDL

```
<?xml version="1.0" encoding="UTF-8"?>
<definitions name="CSNDC" targetNamespace="http://localhost/Emsa/Emsa.wsdl"
  xmlns:tns="http://localhost/Emsa/Emsa.wsdl" xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:csn="http://localhost/csn.xsd"
  xmlns:SOAP="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:MIME="http://schemas.xmlsoap.org/wsdl/mime/"
  xmlns:DIME="http://schemas.xmlsoap.org/ws/2002/04/dime/wsdl/"
  xmlns:WSDL="http://schemas.xmlsoap.org/wsdl/"
  xmlns="http://schemas.xmlsoap.org/wsdl/">
```

```

<types>
  <schema targetNamespace="http://localhost/csn.xsd"
    xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:csn="http://localhost/csn.xsd"
    xmlns="http://www.w3.org/2001/XMLSchema"
    elementFormDefault="qualified"
    attributeFormDefault="unqualified">
    <import namespace="http://schemas.xmlsoap.org/soap/encoding/" />
    <complexType name="VectorOfStrings">
      <sequence>
        <element ref="csn:PackageName" minOccurs="0" maxOccurs="unbounded" />
      </sequence>
    </complexType>
    <complexType name="Package">
      <sequence>
        <element ref="csn:Filename" minOccurs="1" maxOccurs="1" />
        <element ref="csn:MD5" minOccurs="1" maxOccurs="1" />
        <element ref="csn:orderId" minOccurs="1" maxOccurs="1" />
        <element ref="csn:PackageList" minOccurs="1" maxOccurs="1" />
      </sequence>
    </complexType>
    <complexType name="TransmitRequest">
      <sequence>
        <element ref="csn:PackageData" minOccurs="0" maxOccurs="1" />
      </sequence>
    </complexType>
    <element name="PackageName" type="xsd:string" />
    <element name="Filename" type="xsd:string" />
    <element name="MD5" type="xsd:string" />
    <element name="orderId" type="xsd:int" />
    <element name="PackageList" type="csn:VectorOfStrings" />
    <element name="PackageData" type="csn:Package" />
    <element name="Response" type="xsd:string" />
    <element name="OutOfOrderList" type="csn:VectorOfStrings" />
    <element name="UnnotifiedPackages" type="csn:VectorOfStrings" />
    <element name="InputPackage" type="csn:TransmitRequest" />
    <!-- operation request element -->
    <element name="TransmitPackage">
      <complexType>
        <sequence>
          <element ref="csn:InputPackage" minOccurs="0" maxOccurs="1" />
        </sequence>
      </complexType>
    </element>
    <!-- operation response element -->
    <element name="TransmitResponse">
      <complexType>
        <sequence>
          <element ref="csn:Response" minOccurs="1" maxOccurs="1" />

```

```

        <element ref="csn:OutOfOrderList" minOccurs="1" maxOccurs="1" />
        <element ref="csn:UnnotifiedPackages" minOccurs="1"
            maxOccurs="1" />
    </sequence>
</complexType>
</element>
</schema>
</types>
<message name="TransmitPackage">
    <part name="parameters" element="csn:TransmitPackage" />
</message>
<message name="TransmitResponse">
    <part name="parameters" element="csn:TransmitResponse" />
</message>
<portType name="EmsaPortType">
    <operation name="TransmitPackage">
        <documentation>Service definition of function csn__TransmitPackage
        </documentation>
        <input message="tns:TransmitPackage" />
        <output message="tns:TransmitResponse" />
    </operation>
</portType>

<binding name="Emsa" type="tns:EmsaPortType">
    <SOAP:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
        <operation name="TransmitPackage">
            <SOAP:operation soapAction="" />
            <input>
                <SOAP:body parts="parameters" use="literal" />
            </input>
            <output>
                <SOAP:body parts="parameters" use="literal" />
            </output>
        </operation>
    </binding>

    <service name="Emsa">
        <documentation>MD5 Service</documentation>
        <port name="Emsa" binding="tns:Emsa">
            <SOAP:address location=ACS_WSA_SERVICE_ADDRESS />
        </port>
    </service>
</definitions>

```

## 4.34 QBridge

Description	This servlet is used to allow PHP applications to send message to the JMS queues.	
Location	Machine	War
	[x]WLS[yy]	/wl_domains/csn/deployments/qbridge.war
Running as	oracle	
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console	
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console	
Service Status	Use WebLogic Administration Console	
Input	A JMS sent via POST by a PHP application	
Validation & Processing	The JMS message is appended to the JMS queue specified in the message	
Output	Acknowledge is sent upon successful completion	
Contingency	N/A	
Configuration Files	N/A (all configuration parameters are passed by the caller)	
Log File	Path	File name
	/wl_domains/csn/servers/csnServer[n]/logs	csnServer[n].out csnServer[n].log
	Where [n] can be 1 or 2 depending on the WLS server (eg. for pwls09 is 1 and for pwls10 is 2)	

### 4.35 Sibilla JSP Portlet

Description	JSP Portlet allows the configuration and publishing of the Flex-based applications (GIS Viewer, POR, Alerting Admin GUI and Alerting Communication Interface)					
Location	<table><tr><th>Machine</th><th>Component Directory</th></tr><tr><td>[x]WGT[yy]</td><td>/wl_domains/csn/deployments/csndc-sibilla-jsp-portlet.war</td></tr></table>	Machine	Component Directory	[x]WGT[yy]	/wl_domains/csn/deployments/csndc-sibilla-jsp-portlet.war	
Machine	Component Directory					
[x]WGT[yy]	/wl_domains/csn/deployments/csndc-sibilla-jsp-portlet.war					
Running as	oracle					
Service Start	Automatically started by WebLogic Manually, use WebLogic Administration Console					
Service Stop	Automatically stopped by WebLogic Manually, use WebLogic Administration Console					
Service Status	Use WebLogic Administration Console					
Input	Configuration parameters for the Flex Application					
Validation & Processing	N/A					
Output	The HTML code containing the Flex Object properly configured					
Contingency	N/A					
Configuration Files	Flex configurations are inserted at installation time via its web interface					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/wl_domains/csn/servers/csnServer[n]/logs</td><td>csnServer[n].out csnServer[n].log</td></tr></table> <p>Where [n] can be 1 or 2 depending on the WLS server (eg. for pwls09 is 1 and for pwls10 is 2)</p>	Path	File name	/wl_domains/csn/servers/csnServer[n]/logs	csnServer[n].out csnServer[n].log	
Path	File name					
/wl_domains/csn/servers/csnServer[n]/logs	csnServer[n].out csnServer[n].log					

### 4.36 Stires Proxy

<b>Description</b>	This component act as a proxy to allow for OGC standard calls to the internal SSN AIS service	
<b>Location</b>	<b>Machine</b>	<b>Component Directories</b>
	[x]WLS[yy]	/var/www/html/StiresWFSProxyService
<b>Running as</b>	apache	
<b>Service Start</b>	service httpd start	
<b>Service Stop</b>	service httpd stop	
<b>Service Status</b>	service httpd status	
<b>Input</b>	A well-formed OGC call	
<b>Validation &amp; Processing</b>	The OGC call is transformed into the proprietary SSN AIS service call	
<b>Output</b>	Result of the SSN AIS service call converted to the OGC standard	
<b>Contingency</b>	N/A	
<b>Configuration Files</b>	<b>Path</b>	<b>File names</b>
	/var/www/html/StiresWFSProxyService /config	stires_wfs_proxy.ini
<b>Log File</b>	<b>Path</b>	<b>File name</b>
	/va/www/html/logs	stires_proxy yyyy mm dd.log

### 4.37 Archive Component

Description	This component is responsible to perform archive and restore of the CSN-DC data. The details of this functionality are reported in [TDD], section 5.11. <b>NOTE:</b> the function is implemented by a web server. The component also includes a client callable via command line which is basically a wrapper (a sh script) around the web services. Since the business logic is in the Web Service, the following info will be referred to the web service.					
Location	<table><tr><th>Machine</th><th>Component Directories</th></tr><tr><td>[x]WLS[yy]</td><td>/var/www/html/emsa_csn_data_policy_server</td></tr></table>	Machine	Component Directories	[x]WLS[yy]	/var/www/html/emsa_csn_data_policy_server	
Machine	Component Directories					
[x]WLS[yy]	/var/www/html/emsa_csn_data_policy_server					
Running as	apache					
Service Start	service httpd start					
Service Stop	service httpd stop					
Service Status	service httpd status					
Input	A REST GET request with the following parameters: <ul style="list-style-type: none"><li>• <u>request</u>: can be <i>Archive</i> or <i>Restore</i></li><li>• <u>days</u>:<ul style="list-style-type: none"><li>○ if the request = <i>Archive</i>: number of days for defining data to be archived (all data older than <i>now – days</i> will be archived)</li><li>○ if the request = <i>Restore</i>: retention time (in days) of the restored data (after which the data will be archived again, if the function is called with the <i>expired</i> flag set to 1 (see below)</li></ul></li><li>• <u>expired</u>: a flag to archive expired data (if set to 1 all data which were restored previously, for which the restore retention time has passed)</li><li>• <u>debug</u>: is set to 1, the function will be run in verbose mode</li></ul>					
Validation & Processing	Details of the processing are reported in the [TDD] section 5.11.					
Output	Archvied or restored data.					
Contingency	N/A					
Configuration Files	<table><tr><th>Path</th><th>File names</th></tr><tr><td>/var/www/html/emsa_csn_data_policy_server/config</td><td>csn_data_policy_httpd.conf csn_data_policy.ini websecurity.ini</td></tr></table>	Path	File names	/var/www/html/emsa_csn_data_policy_server/config	csn_data_policy_httpd.conf csn_data_policy.ini websecurity.ini	
Path	File names					
/var/www/html/emsa_csn_data_policy_server/config	csn_data_policy_httpd.conf csn_data_policy.ini websecurity.ini					
Log File	<table><tr><th>Path</th><th>File name</th></tr><tr><td>/va/www/html/logs</td><td>csn data policy yyyy mm dd.log</td></tr></table>	Path	File name	/va/www/html/logs	csn data policy yyyy mm dd.log	
Path	File name					
/va/www/html/logs	csn data policy yyyy mm dd.log					

## **APPLICATION SERVER MAINTENANCE PROCEDURES**

## 5 APPLICATION SERVER MAINTENANCE PROCEDURES

This section provides the information necessary to maintain the Application Servers of the system. Each Application Server maintenance procedure is under a separate section header.

### 5.1 WLS WebLogic

CSNDC Business Logic is partly based on applications deployed in the WLS WebLogic cluster. These are:

- csndc-jou\_ws
- csndc-finsys\_ws
- deegree-wfs
- vcat-csw
- reportGenerator
- qbridge

#### 5.1.1 Start Up Parameters

Since JAI uses a graphic context for image generation, the following parameters are used at the start up:

-Djava.awt.headless=true -Xms3072m -Xmx3072m -Duser.timezone=GMT

#### 5.1.2 Datasources

Name: **JOUWSDS**  
 JNDI Name: **jdbc/JOUWsDS**  
 Database Type: **Oracle**  
 Database Driver: **Oracle's Driver (Thin XA) for Instance connections;**  
 Versions: **9.0.1,9.2.0,10,11**  
 DB User: **jouws**

Name: **FinSysWSDS**  
 JNDI Name: **jdbc/FinSysWSDS**  
 Database Type: **Oracle**  
 Database Driver: **Oracle's Driver (Thin XA) for Instance connections;**  
 Versions: **9.0.1,9.2.0,10,11**  
 DB User: **finsys**

#### 5.1.3 Security realms

Security Realm: **myrealm**  
 DefaultAuthenticator: **Provider Specific** with **Enable Password Digest**  
 DefaultIdentityAsserter: **wsse:PasswordDigest** selected in the **Chosen** list

### 5.1.4 User Groups

Name	Description	Provider
<b>CSNDC Group</b>	Group for JNDI access	DefaultAuthenticator

### 5.1.5 Users

Name	Used by	Target
<b>jouws</b>	JOUWSWSecurity	DefaultAuthenticator
<b>finsysws</b>	FinSysWS WSSecurity	DefaultAuthenticator
<b>csndcjndi (CSNDC Group)</b>	JNDI access	DefaultAuthenticator

### 5.1.6 JMS Servers

Name	Persistent Store	Target
<b>csndc-jmsserver</b>	csndc-jms-filestore	jmsServer

### 5.1.7 JMS Queues

Name	JNDI	SubDeployment
<b>ReportGeneratorQueue</b>	csndc.queues.ReportGeneratorQueue	
<b>jouws-jms-queue</b>	csndc.queues.JOUWSQueue	csndcSubDeployment
<b>finsysws-jms-queue</b>	csndc.queues.FINSYSWSQueue	csndcSubDeployment

### 5.1.8 File Store

Name	JNDI	Directory
<b>csndc-jms-filestore</b>	jmsServer	/wl_domains/csn/JmsQueueStore

### 5.1.9 Connection Factories

Name	JNDI	Target
<b>jouws-connection-factory</b>	JOUWSConnectionFactory	csnServer
<b>RepGenCF</b>	csndc.ReportGeneratorCF	csnServer

### 5.1.10 Other configurations

Type: <b>JMS Modules</b> Name: <b>csndc-jms-module</b>
---

Target: <b>csnServer</b>
Type: <b>SubDeployment</b> Name: <b>csndcSubDeployment</b> Target: <b>csndc-jmsserver</b>
Type: <b>csndc-jms-module</b> Name: <b>ReportGeneratorErrorQueue</b> JNDI name: <b>csndc.queues.ReportGeneratorErrorQueue</b> Subdeployment: <b>csndcSubDeployment</b>
Delivery Failure section of ReportGeneratorQueue has the following settings: Redelivery Limit: <b>0</b> Expiration Policy: <b>Redirect</b> Error Destination: <b>ReportGeneratorErrorQueue</b>

## 5.2 WGT WebLogic

CSNDC Front End is based on portlets deployed in the WLS WebLogic cluster. These are:

- Liferay
- csndc-sibilla-jsp-portlet-liferay6
- csndc-jou\_portlet
- csndc-finsys\_portlet

### 5.2.1 Start Up Parameters

To configure the correct document library the following lines must be add to the portal-ext.properties file:

```
com.liferay.portal.upload.UploadServletRequestImpl.max.size=5242880
dl.file.max.size=5242880
dl.file.extensions=.bmp,.css,.csv,.doc,.docx,.dot,.gif,.gz,.htm,.html,.jpg,.js,.jar,.odb,.odf,.odg,.odp,.ods,
.odt,.pdf,.png,.ppt,.pptx,.rtf,.swf,.sxc,.sxi,.sxw,.tar,.tiff,.tgz,.txt,.vsd,.xls,.xlsx,.xml,.zip,.jrxml
mail.session.jndi.name=mail/LiferayMail
```

### 5.2.2 Datasources

Name: <b>JOUWSDS</b> JNDI Name: <b>jdbc/JOUWsDS</b> Database Type: <b>Oracle</b> Database Driver: <b>Oracle's Driver (Thin XA) for Instance connections;</b> Versions: <b>9.0.1,9.2.0,10,11</b> DB User: <b>jouws</b>
Name: <b>FinSysWSDS</b> JNDI Name: <b>jdbc/FinSysWSDS</b> Database Type: <b>Oracle</b> Database Driver: <b>Oracle's Driver (Thin XA) for Instance connections;</b>

Versions: **9.0.1,9.2.0,10,11**

DB User: **finsys**

### 5.2.3 Users

Name	Used by	Target
csndcjndi (CSNDC Group)	JNDI access	DefaultAuthenticator

## **DATABASE MAINTENANCE PROCEDURES**

## 6 DATABASE MAINTENANCE PROCEDURES

This section provides the information necessary to maintain the databases of the system.

The following section highlight the special actions to be performed on some DB Tables in order to purge them after a define amount of time.

All other standard DB maintenance activities are out of the scope of this section and considered already scheduled.

### 6.1 DGRFTRUSR

Table	Content	Action
<b>AISTrack</b>	This table contains the positions of all the vessels that were intersecting all the acquired scenes within a 6 hours from the corresponding acquisition time.	This table is expected to grow rapidly, hence a purge strategy must be put in place. Deletion query can use the "TSTAMP" field to delete all positions older then TBD days

### 6.2 OASUSR

Table	Content	Action
<b>OAS_CS_SCHEDULED_ALERTS</b>	This table contains the alerts sent to all Coastal States.	This table is expected to grow more in terms of size than in number of rows, as every row has a blob field (ALERT_MSG_PDF) containing the PDF Report generated. Hence a purge strategy could be put in place deciding to clear the entire row or remove the PDF file. Deletion query can use the "NOTIFICATION_DATE" field to delete all positions older then TBD days. Moreover, this table has a children table linked OAS_SENT_ALERTS (see next table row)
<b>OAS_SENT_ALERTS</b>	Contains the list of recipient of every alert report and the status of the transmission. Its master table is OAS_CS_SCHEDULED_ALERTS	If its master is expected to be purged, linked records of this table must be deleted, as well.

### 6.3 PORUSR

Table	Content	Action
<b>ORDER_DETAILS</b>	Each record corresponds to one scene that was put in the shopping cart.	<p>This table is expected to have a growth of roughly 500 rows per month, not many, but after the scene optimisation done by EMSA Staff via MAT, about half of these records are expected to have a meaning as they will correspond to the scene really acquired.</p> <p>A deletion of only the scenes that were not acquired can be put in place considering a retention period TBD.</p> <p>Deletion query can use the "ACQ_START_TIMESTAMP" field to delete all discarded scenes older than TBD days. Moreover, this table has a children table linked HIST_ORDER_DETAILS (see next table row)</p>
<b>HIST_ORDER_DETAILS</b>	Contains the actions done on each acquired scene by all the users, that is, the history of their workflow. Its master table is ORDER_DETAILS.	If its master is expected to be purged, linked records of this table must be deleted, as well.

## 7 Other systems

### 7.1 Oracle Identity Management suite

Please refer to the Oracle IDM - Operation and Maintenance.

### 7.2 EMSA Load Balancing system

Please refer to the EMSA ICT wiki at [http://emsanet/w/index.php?title=Software\\_Load\\_Balancer](http://emsanet/w/index.php?title=Software_Load_Balancer)

### 7.3 EMSA SFTP SYSTEM

Please refer to the EMSA ICT wiki at [http://emsanet/w/index.php?title=FTP\\_Operations](http://emsanet/w/index.php?title=FTP_Operations)

### 7.4 F5 Specific Configuration

In EMSA F5 reverse proxy, the following rule was included:

```
when HTTP_REQUEST {
    # Save the host/URI so it will be available in the HTTP_RESPONSE event
    set url [HTTP::uri]
}

when HTTP_RESPONSE {
    if { ($url starts_with "/javabridge/acs/") || ($url starts_with "/sibilla-static/") || ($url starts_with
"/cmapcluster2") || ($url starts_with "/geoserver/")} {
        if {[HTTP::header exists Pragma]} {
            HTTP::header remove Pragma
            HTTP::header remove Cache-Control
            #HTTP::header insert Cache-Control "no-cache"
        }
    }
}
```

## 8 TROUBLESHOOTING CHECK LIST

This section lists the major problems that can occur with the current release of the CSNDC and the possible troubleshooting operations to be performed. Most of the section is related to the automatic activities related to the PDS COTS.

Some of the troubleshooting operations indicated below are related to system configuration inspection, which can be performed using the PDS UI [SUM-4] doc. Reference to the specific section will be made wherever necessary.

Possible errors and anomalies are grouped per functional areas, e.g. ingestion, dissemination, processing, web applications, etc.

### 8.1 Data ingestion anomalies

Possible major errors and troubleshooting approaches are described hereafter.

Anomaly description: System does not correctly ingest data

- Verify that the Input repositories are correctly configured, cfr. [SUM-4], § 2.2.1.5
- Verify that the data are physically available on the input repositories defined, e.g. in the appropriate FTP basket
- Verify that the data are with the correct naming convention. If not, PreImport will complain in its log file with something like *"file <filename> does not adhere to the naming convention: will be moved to <pds\_bad>"*. In this case, contact the Service Provider
- Verify that the *Import* daemon is up and running, using the following command: `/etc/init.d/ftplnit status`
- Inspect the Import log on the following directory `/usr/acs/log`, which should indicate the possible cause of error. NOTE: the Import log is configured to write periodically (every few seconds) some strings indicating the check on the reception policies. If the Import process appears to be alive, but the log file does not update every few seconds, it could be that the Import is stuck and shall be restarted. This situation has been observed only once since start of operations, and is very unlikely, but it may occur.

Anomaly description: **Data are not correctly archived or extracted from the ISM.**

- Verify that the ISM application is correctly up and running, by using the following command: `/etc/init.d/httpd status`
- Verify the ISM logs that are in the directory `/var/www/html/logs`
- Verify that the FTP server on [x]PMAS[yy] is correctly up and running

Anomaly description: **Data are not stored in the CSW/WFS catalogues.**

- Verify that the crontab daemon is running
- Verify that the SDF Broker application is correctly called by the crontab: inspect the crontab file (as root, command `crontab -l`) and the SDF Broker log file (in `/var/www/html/logs`)
- Verify that the CSW service is up and running.  
Use the URL `http://[x]wls[yy]:7001/vcat-csw/services`
- Verify that the WFS service is up and running.  
Use the URL `http://[x]wls[yy]:7001/deegree-wfs/services`
- Inspect WebLogic log file

This type of anomalies can be identified when some data processing activity, that should automatically occur in fact does not produce the expected results, either because the production did not take place at all, or because there was an error in the processing.

Anomaly description: **System does not generate orders for data production**, i.e. the orders are not shown in the distribution pane as expected (this can be verified on the UI indicating distribution orders, cfr. [SUM-4], § 2.2.3.1):

- Verify that the *OrderGenerator* daemon is up and running, using the following command:  
`/etc/init.d/sdfsrv status`
- Inspect the *OrderGenerator* log on the following directory `/usr/acs/log`, which should indicate the possible cause of error
- Check the configuration of the order generation policies, cfr. [SUM-4], § 2.2.1.13

IPF (Instrument Processing Facility) is the facility responsible for the data processing activities. Typical possible anomalies are that the orders are issued (by the SDF, see section above), but remain in status *eligible* (this means that are never actually processed), or that the orders are processed, but produce an error. One of the causes why an order is not processed could be that some of the mandatory data necessary for executing the order is not available. Details on troubleshooting are reported hereafter.

Anomaly description: **Orders remain in *Eligible* status**, i.e. are not correctly processed:

- Verify that the *TLDaemon* is up and running, using the following command:  
`/etc/init.d/TLDaemon status`
- Inspect the *Thin Layer* log, located in the following directory `/usr/acs/log` on the local machine of the IPF
- Verify in the file `/usr/acs/conf/local/WSConfig.xml` that the processor to which the order is referred is correctly configured
- On the UI Order Manager, select the order and verify in the pending list if the order is still pending arrival of some mandatory data (the mandatory data list can be visualized from the task table, which is an XML file pointed to by the `/usr/acs/conf/local/WSConfig.xml`)

Anomaly description: **Orders are processed, but produce an error.**

In case of failure of one of the processor tasks, the order status will be set to ERROR in the PDS order queue.

The Working Directory (WD) will have the same name as the order id, and will be located under the path pointed by the tag `<TLD_Orders_Root_Path>` in the *tlDaemon* configuration space and is requested for any analysis.

The operator should keep the WD and the corresponding raw data files, identified by the Process ID displayed on the PDS GUI, notifying to ACS the failure with the reference to the Process ID.

The name of the station on which the order was processed can be read in the Job Responsible field in the order itself.

The WD and the raw data files should not be removed until the ACS has analysed and fixed the error.

Once the problem is solved the WDs have to be removed manually by the operator, then the order status can be set back to ELIGIBLE using the PDS GUI.

If the Job Responsible field is left unchanged, processing attempt will be retried on the same workstation; if it is cleared, the order will be processed on the first available workstation.

## Inventory Failure

At the end of the inventory phase (last task in all processor task tables) the following two cases could occur:

- The inventory ended successfully for all the product files produced
- The inventory failed for one or more of them (see corresponding error in the Error messages and troubleshooting table)

In case of Inventory failure the files not inventoried are moved in the directory pointed by the tag `<BackupDir>` in the Inventory configuration file.

The operator once analysed and removed (if possible) the problem that caused the failure, should start the RelInventory task from the Monitor&Control selection bar

### 8.1.1 Data distribution anomalies

Anomaly description: System does not disseminate alerts and reports to the users.

On [x]PMAS[yy]:

- verify that the *Cron Daemon* is up and running, using the following command: `service crond status`
- Inspect the *WebCat Feeder* log, located in the following directory `/var/www/html/log`
- Inspect the *FOP Report Generator* log, located in the following directory `/var/www/html/log`

Via the WLS Web Logic console:

- Verify the health and status of the deployed Report Manager application

On [x]WLS[yy]:

- Inspect the *Alerting Emailer* log, located in the following directory `/var/www/html/log`

Via the Alerting Admin GUI:

- Verify the transmission grid for the given alert, checking the status for each recipient.

## 8.2 Web Applications anomalies

This type of anomalies is related to the web applications (GIS Viewer, POR, Alerting Admin GUI, Alerting Communication Matrix, JOU, COM and FinSys), e.g. the web application cannot be visualized at all, or the web application content is not as expected.

Possible actions to be taken to troubleshoot unexpected anomalies are reported hereafter.

- Verify that Liferay is running by accessing the portal's home URL
- Verify that the configuration files are in the correct directories (see §4)
- Verify that the database is running and contains the correct tables:
  - Access the database and check if the tables from the database schema exist.
  - Verify that the connection string is correct
  - Verify the security credentials (username and password) are correct and have permissions to access the specified database.
- Inspect WebLogic log files for any error or discrepancy

Special cases are reported hereafter for some specific applications.

### 8.2.1 GIS VIEWER/POR special cases

- Verify that the WebContent page for each application can be correctly accessed and the html code contains the correct address
- Verify that the OGC web services (CSW, WMS, WFS) are deployed as applications within WebLogic, and that the services are correctly up and running
  - For the CSW, use the URL `http://twls10:7001/vcat-csw/services`
  - For the WFS, use the URL `http://twls10:7001/deegree-wfs/services`

### 8.2.2 JOU special cases

Possible actions to be taken to troubleshoot unexpected anomalies in the JOU are reported hereafter.

- Verify that the web service is running by accessing its url
- Verify that the JMS queue is created and properly configured in weblogic
  - Verify that the JMS queue names are correct on the webservice configuration file.
  - Verify that the Connection Factory name is correct on the webservice configuration file.
  - Verify the security credentials (username and password) are correct and have permissions to access the specified queue.
- Verify that the portlet contains the correct WSDL url configured in the Edit page of the portlet.
- Verify that the portlet has been installed by verifying under the: Liferay Control Panel -> Server -> Plugins Installation

### 8.2.3 FinSys special cases

Possible actions to be taken to troubleshoot unexpected anomalies in the JOU are reported hereafter.

- Verify that the web service is running by accessing its url
- Verify that the JMS queue is created and properly configured in weblogic
  - Verify that the JMS queue names are correct on the webservice configuration file.
  - Verify that the Connection Factory name is correct on the webservice configuration file.
  - Verify the security credentials (username and password) are correct and have permissions to access the specified queue.
- Verify that the portlet contains the correct WSDL url configured in the Edit page of the portlet.
- Verify that the portlet has been installed by verifying under the: Liferay Control Panel -> Server -> Plugins Installation

### 8.2.4 COM special cases

Possible actions to be taken to troubleshoot unexpected anomalies in the COM are reported hereafter.

- Verify that the JMS queue is created and properly configured in weblogic
  - Verify that the Connection Factory name is correct on the webservice configuration file.
  - Verify the security credentials (username and password) are correct and have permissions to access the specified queue.

• Verify that the portlets have been installed by verifying under the:  
Liferay Control Panel -> Server -> Plugins Installation

## 8.3 Additional error messages

### 8.3.1 Pre-Import

PreImport		
String	Description	Corrective actions
Cannot move <local_file> to <new_file>	File cannot be moved	Check directory permissions Check Available disk space

### 8.3.2 Import

String	Description	Corrective actions
..... Problem connecting to DB	The DB is not accessible. The Task will retry until DB is accessible.	Wait or stop the Import task
ImportApp::main Problem loading configuration. Caused by ..... Keep Trying	Problem while loading configuration	None
RemoteFilesMonitor::loadScriptArguments Can't load configuration record	The DB is not accessible. The Task will retry until DB is accessible.	Wait or stop the Import task
InputListener::loadDbTables <b>tablename</b> table is empty!!!!Waiting for DB Tables reload...	Wrong configuration for <b>tablename</b>	Run the Configuration Tool to check the <b>tablename</b> table and configure properly.
InputListener::createPollingAction Not admitted ReceptionTrigger value: <b>trigger</b> In T_ReceptionPolicy	Configuration error. The reception policy will be skipped	Configure T_ReceptionPolicy properly, in particular the ReceptionTrigger
InputListener::createPollingAction Cannot find IORepository record with primary key: <b>iorep</b>	Configuration error. The reception policy will be skipped	Configure T_ReceptionPolicy properly
RemoteFilesMonitor::downloadFiles problem connecting to host <b>url</b> for file type <b>_fileType</b> retry.....	The files download script has failed the first time while contacting the host. It will retry for the N configured times.	None
RemoteFilesMonitor::downloadFiles problem downloading from repository <b>url</b> for file type <b>fileType</b> retry.....	The files download script has failed the first time while downloading the file. It will retry for the M configured times.	None
RemoteFilesMonitor::getFilesList problem connecting to host repository <b>url</b> for file type <b>fileType</b> retry.....	The polling script has failed the first time while contacting the host. It will retry for the N configured times.	None
DataReceiverException::DataReceiverException in file RemoteFileSystemMonitor.C at line <b>numline</b> RemoteFilesMonitor::createDir Cannot create dir: <b>dirname/user/filetype</b>	Either a configuration problem (directory permission) or disk quota exceeded. No files will be imported from the user <b>user</b> until the next DB tables reload	Check and eventually change directory permissions or clean disk if disk quota has exceeded. Restart manually the Import task or wait until automatic restart
InputListener::checkPollingAction : Exception received by polling action for User: <b>user</b> and FileType: <b>Filetype</b> DataReceiverScriptException::DataReceiverScriptException in file RemoteFileSystemMonitor.C at line <b>numline</b> RemoteFilesMonitor::method - Error connecting to host <b>url</b> for application <b>applicationName</b> . See log file: <b>logFileName</b> ;	Failed all configured retry for the <b>applicationNamescript</b> . No files will be imported from this user until the next polling	Log Inspection of the specified <b>logFileName</b>
InputListener::checkPollingAction : Exception received by polling action for User: <b>user</b> and FileType: <b>Filetype</b> exMemoryAllocationException::exMemoryAllocationException in file RemoteFileSystemMonitor.C at line <b>numline</b>	Could not allocate memory No files will be imported from this user until the next polling	Check if disk quota has exceeded and in case clean the disk .

RemoteFilesMonitor::loadScriptArguments dbApplicationStatus dynamic cast failed		
InputListener::checkPollingAction : Exception received by polling action for User: <b>user</b> and FileType: <b>Filetype</b> DataReceiverException::DataReceiverException in file RemoteFileSystemMonitor.C at line <b>numline</b> RemoteFilesMonitor::extractFilesFromList Error executing <b>preDownloadApp</b> for fileType: <b>_fileTypeld</b> and user: <b>_user</b> . See log file: <b>logFileName</b> ;	Failed the <b>preDownloadApp</b> application No files will be imported from this user until the next polling	Log Inspection of the specified <b>logFileName</b>
InputListener::checkPollingAction : Exception received by polling action for User: <b>user</b> and FileType: <b>Filetype</b> . Switching to server: <b>urlmirror</b> DataReceiverScriptException::DataReceiverScriptException in file RemoteFileSystemMonitor.C at line <b>numline</b> RemoteFilesMonitor::method - Error connecting to host <b>url</b> for application <b>applicationName</b> . See log file: <b>logFileName</b> ;	Failed all configured retry for the <b>applicationNamescript</b> . A mirror server is available for this file type: files, if any, will be downloaded from this server	Log Inspection of the specified <b>logFileName</b>
exCriticalException in ImportApp.C:514 ImportApp::runImport received exception from InputListener .....restarting! caused by: ImportApp::main Problem loading configuration. Maximum number of retries reached. ImportApp::main unrecoverable error: restarting...	Wrong configuration for Configuration spaces	Run the Configuration Tool and configure properly the DGF-FTP Configuration space.
exCriticalException in ImportApp.C:514 ImportApp::runImport received exception from InputListener .....restarting! caused by: InputListener::createPollingAction Cannot find IORep record with primary key <b>url</b> ImportApp::main unrecoverable error: restarting...	Wrong configuration for T_IORepository The Import task will automatically restart	Run the Configuration Tool to check the T_IORepository table and configure properly.
ImportApp::main received unknown exception: restarting...	Self explained The Import task will automatically restart	Log Inspection
exCriticalException in ImportApp.C:514 ImportApp::runImport received exception from InputListener .....restarting! caused by: InputListener::InputListener Cannot dynamic_cast <b>dbquery!</b> ImportApp::main unrecoverable error: restarting...	Could not allocate memory The Import task will automatically restart	Check if disk quota has exceeded and in case clean the disk .
ImportApp::runImport <b>dbquery</b> : cannot dynamic_cast! ImportApp::main unrecoverable error: restarting...	Could not allocate memory The Import task will automatically restart	Check if disk quota has exceeded and in case clean the disk .
exCriticalException in ImportApp.C:740 ImportApp::runImport error processing file: <b>filename</b> File not inventoried! caused by: InDataGroup::checkIndataGroupStructure <b>n</b> packed file expected for filetype <b>filetype</b> . Received <b>m</b> files!	Configuration error or wrong data structure. The files are moved to the Import backup directory and not inventoried.	Check the configuration for the imported file/s; if it is wrong, modify it and import the files manually
exCriticalException in ImportApp.C:740 ImportApp::runImport error processing file: <b>filename</b> File not inventoried!	<u>Configuration error or wrong data structure.</u> <u>The files are moved to the</u>	<u>Check the configuration for the imported file/s; if it is wrong, modify it and import</u>

caused by: GenerateInDataGroup::run Problem running storeFileToFileMap	<u>Import backup directory and not inventoried.</u>	<u>the files manually</u>
exCriticalException in ImportApp.C:740 ImportApp::runImport error processing file: <b>filename</b> File not inventoried! caused by: ImportApp::spawnExecutable Error executing <b>executable</b> . See log File <b>logfilename</b>	The pre inventory of the imported file/s has failed The files are moved to the Import backup directory and not inventoried.	Log Inspection of the <b>logfilename</b>
exCriticalException in ImportApp.C:740 ImportApp::runImport error processing file: <b>filename</b> File not inventoried! caused by: ImportApp::spawnExecutable Error executing <b>Inventory</b>	The inventory of the imported file/s has failed The files are moved to the Inventory backup directory	Log inspection of the inventory log file under /usr/acs/log (the one with the date closest to the Inventory date)
exCriticalException in ImportApp.C:740 ImportApp::runImport error processing file: <b>filename</b> File not inventoried! caused by: Import::accessDB <b>tablename</b> table is empty!!!	No records found in <b>tablename</b> table for the <u>file</u> imported  The files are moved to the Import backup directory and not inventoried.	Check DB activity; If necessary, modify the table properly and import the files manually
exCriticalException in ImportApp.C:740 ImportApp::runImport error processing file: <b>filename</b> File not inventoried! caused by: ImportApp::spawnExecutable Error executing Decompress.sh!	Error while unpacking the file. The file is moved to the Import backup directory and not inventoried.	Check the file extension and DB configuration; if the configuration is incorrect, modify it and import the files manually Also check disk quota
exCriticalException in ImportApp.C:740 ImportApp::runImport error processing file: <b>filename</b> File not inventoried! caused by: ImportApp::Run Files within the same InDataGroup must have the same File type	Configuration error. The files are moved to the Import backup directory and not inventoried.	Check the configuration for the imported file/s; if it is wrong, modify it and import the files manually

### 8.3.3 EMSA Pre-Inventory

String	Description	Corrective actions
<b>Generic</b>		
Input file must be a tgz or zip or tar file	File extension is not one zip, tar or tgz	Contact Service Provider
Xml validation errors: <message>	The package is not compliant with the XSD schema	Inspect Package content
Inventory of package type <code>{info['packageType']}</code> not implemented yet	Pre-inventory does not know how to extract information on package	This could be due to a wrong configuration in the FileType
Cannot create \$listname file	Cannot write .LIST file	Check available disk space Check directory permissions
Error writing \$filemtd Metadata file	Cannot write .MTD file	Check available disk space Check directory permissions
<b>OSXPreInventory.php</b>		
Cannot Inventory <package name> because it did not contain oil spill files.	The Oil Spill Package does not contains oil spills	Inspect the package

## 8.4 Inventory

The attempt to update the PDS tables or to upload to ISM can fail for “a number of good reasons”, referred also as Contingency Cases (see **Error! Reference source not found.**).

When the Inventory process fails, the entire working directory of the given package is stored into a dedicated “back up” area in order to perform:

- An inspection on the product
- An attempt to re-ingest the product once the problem has been fixed

Each time an Inventory process fails, it sends a “**Critical Exception**” to the operator.

In the error message attached to the Critical Exception there is also the full path of a log file where the reason for the failure of the insertion is reported in human readable format (e.g. a string).

If the reason for the failure is considered resolved, the Operator can re-ingest the package, otherwise he has to initiate a troubleshooting analysis that may also be supported by the Maintenance team in ACS.

## 8.5 TlDaemon

String	Description	Corrective actions
OrderQueueMgr: cannot execute <operation>	Cannot update the order status in the orders queue, after retry. Probably connection with the Oracle Server got lost.	<ul style="list-style-type: none"> <li>➤ Check that physical connection with the Oracle DB is available</li> </ul>
Max number of parallel orders in execution has been reached	An order is being processed on the involved workstation, and another one in eligible status was read from the orders queue	None: this is an informational message; the order will be peeked-up by one of the workstations
OrderExecutionMgr: cannot find task table for processor <name> version <v> in ws configuration file	The task table for the given processor pointed by the Workstation Configuration File cannot be opened	<ul style="list-style-type: none"> <li>➤ Check that the file is present in the pathname indicated in the workstation configuration file;</li> <li>➤ If not, check processor installation; if installation is correct, update the workstation configuration file, else re-install the processor</li> <li>➤ If the file is present, check access rights: ensure that the daemon has read, write and execution permission on the task table file</li> </ul>
cannot update <informations> in the database for order <order identification>	Cannot update the order related information in the orders queue, after retry. Probably connection with the SDF got lost.	<ul style="list-style-type: none"> <li>➤ Check that physical connection with the Oracle DB is available</li> </ul>
OrderExecutionMgr: ERROR: can't download inputs for order <order identification>	Unable to download inputs from Oracle DB. Probably connection with the Oracle and/or ISM got lost.	<ul style="list-style-type: none"> <li>➤ Check that physical connection with the Oracle and ISM is available</li> <li>➤ Check that ISM and Oracle are running</li> </ul>
QueueMgrFactory: unknown order queue manager type <type>; using DB	A wrong queue manager type was read from the tlDaemon configuration file	<ul style="list-style-type: none"> <li>➤ Correct the tlDaemon file using the PDS GUI</li> </ul>
Cannot load WS Configuration file: initialisation failed	The Workstation Configuration File specified in the <wsname> configuration space cannot be opened	<ul style="list-style-type: none"> <li>➤ Check that the file is present in the pathname indicated in the configuration space;</li> <li>➤ If not, check facility installation; if</li> </ul>

		<p>installation is correct, update the configuration space file, else re-install the facility</p> <ul style="list-style-type: none"> <li>➤ If the file is present, check access rights: ensure that the daemon has read, write and execution permission on the workstation configuration file</li> </ul>
Cannot load plug-ins: initialisation failed	The plug-in dll specified in the tlDaemon configuration space cannot be loaded	<ul style="list-style-type: none"> <li>➤ Check that the file is present in the pathname indicated in the configuration space;</li> <li>➤ If not, check facility installation; if installation is correct, update the configuration space file, else re-install the facility</li> <li>➤ If the file is present, check access rights: ensure that the daemon has read, write and execution permission on the workstation configuration file</li> <li>➤ Finally, check that the "count" attribute of the plugins section in the tlDaemon configuration space maps the number of plug-ins listed in the section itself</li> </ul>
Cannot create working dir <Dirname>	Creation of the working dir for an order to be processed failed	<ul style="list-style-type: none"> <li>➤ Check that a directory with the same name does not exist already (probably as a consequence of a missing clean-up for a previously failed execution of the same order)</li> <li>➤ Check that the disk where the directory is being created is not full</li> <li>➤ Check that the daemon has read/write/execute access rights on the root directory for working dirs (the path of this directory is read from the &lt;wsname&gt;_ configuration space)</li> </ul>
ExecutingOrder: private configuration file <filename> for order <order identification> does not exist!	The private configuration file for the processor involved in the given order processing cannot be opened	<ul style="list-style-type: none"> <li>➤ Check that the file is present in the pathname indicated in the task table;</li> <li>➤ If not, check processor installation; if installation is correct, update the task table, else re-install the processor</li> <li>➤ If the file is present, check access rights: ensure that the daemon has read, write and execution permission on the path set in the workstation configuration file</li> </ul>
ERROR: ExecutingOrder: cannot spawn scheduler(<WorkOrderFileName>)	The operating system returned error while trying to start the scheduler	<ul style="list-style-type: none"> <li>➤ Check that the file is present in the pathname indicated in the &lt;wsname&gt; configuration space;</li> <li>➤ If not, check facility installation; if installation is correct, update the &lt;wsname&gt; configuration space using the PDS GUI, else re-install the facility</li> <li>➤ If the file is present, check access rights: ensure that the daemon has read, write and execution permission on the scheduler executable</li> </ul>
ERROR : cannot download configuration spaces. Going on with the existing settings	The configuration spaces requested during a configuration reload are unavailable. The settings will not be updated.	<ul style="list-style-type: none"> <li>➤ Check that physical connection with the Oracle DB is available</li> <li>➤ Check that the requested configuration files exist in the Oracle DB</li> </ul>
ERROR : cannot load WS configuration file – available	The Workstation Configuration file cannot be read during a configuration	<ul style="list-style-type: none"> <li>➤ Check that the file is present in the pathname indicated in the configuration space;</li> </ul>

processor list inconsistency expected	reload. The list of the processors configured on the workstation can differ from the list included in the configuration file.	<ul style="list-style-type: none"> <li>➤ If not, check facility installation; if installation is correct, update the configuration space file, else re-install the facility</li> <li>➤ If the file is present, check access rights: ensure that the daemon has read, write and execution permission on the workstation configuration file</li> </ul>
cannot load configuration settings. Initialization failed	The configuration spaces requested during the initialization reload are unavailable.	<ul style="list-style-type: none"> <li>➤ Check that physical connection with the Oracle DB is available</li> <li>➤ Check that the requested configuration files exist in the Oracle DB</li> </ul>
ERROR: order queue manager is not running – shutting down	There was an unexpected condition that caused the order queue manager (an internal Thin Layer component) to stop.	<ul style="list-style-type: none"> <li>➤ Check facility installation; if the installation is not correct re-install the facility</li> </ul>
OrderQueueManager : ERROR initialization failed	There was an unexpected condition that caused the order queue manager initialization to fail.	<ul style="list-style-type: none"> <li>➤ Check facility installation; if installation is correct, update the configuration space file, else re-install the facility</li> </ul>
OrderQueueManager : ERROR the broadcast listener is not running. Cannot continue without any timer setted	There was an internal error that caused the DataBase Broadcast Message Listener to stop.	<ul style="list-style-type: none"> <li>➤ Check that physical connection with the Oracle DB is available</li> <li>➤ Check facility installation; if installation is correct, update the configuration space file, else re-install the facility</li> </ul>
OrderQueueManager: ERROR the order queue is unreachable	It is not possible to create a connection to the Oracle DB and retrieve the order queue.	<ul style="list-style-type: none"> <li>➤ Check that physical connection with the Oracle DB is available</li> </ul>
ERROR: cannot copy the private configuration file <file name> in the working directory for order <order identification>	The private configuration file exists but is not possible to copy it in the working directory	<ul style="list-style-type: none"> <li>➤ Check access rights: ensure that the daemon has read, write and execution permission on the path set in the workstation configuration file</li> <li>➤ Check the available space on the unit containing the working directory</li> </ul>
InputResourceManager : ERROR while downloading input for file type <file type identification>	The download of the requested files cannot be completed successfully. This can happen when a download pool is interrupted by a request of IMMEDIATE STOP (SIGTERM)	<ul style="list-style-type: none"> <li>➤ In case of SIGTERM this is not to be considered as an error</li> <li>➤ Check that physical connection with the Oracle DB is available</li> </ul>
OrderQueueManager : ERROR while creating cleaned up orders dir	Cannot create a directory when running in INTERACTIVE mode	<ul style="list-style-type: none"> <li>➤ Check access rights: ensure that the daemon has read, write and execution permission on the path set in the workstation configuration file</li> <li>➤ Check the available space on the unit containing the orders directory</li> <li>➤ Check facility installation; if installation is correct, update the configuration space file, else re-install the facility</li> </ul>
OrderQueueManager : ERROR while importing/unlinking order file <file identification>	Cannot read or unlink a file. Reading errors can occur if the file is read in the same time of its creation	<ul style="list-style-type: none"> <li>➤ In case of import error, just wait a new Checking Queue event. If the error doesn't disappear follow the troubleshooting section</li> <li>➤ Check access rights: ensure that the daemon has read, write and execution permission on the path set in the workstation configuration file for the orders dir</li> <li>➤ Check the available space on the unit containing the orders directory</li> <li>➤ Check facility installation; if installation is correct, update the</li> </ul>

		configuration space file, else re-install the facility
Others undocumented errors	Internal errors occurred	<ul style="list-style-type: none"> <li>➤ Check facility installation; if installation is correct, update the configuration space file, else re-install the facility</li> <li>➤ Check hardware healthy status</li> <li>➤ Call ACS maintenance service</li> </ul>

## 8.6 GIS Viewer, POR, Alerting GUIs

String	Description	Corrective actions
On module loading:  oci_new_connect(): ORA-01017: invalid username/password; logon denied	An error occurs in the [db] section of module's ini configuration file	Check and correct the [db] section of module's ini configuration file  N.B. In ini configurations files tokens of type <XXX> are replaced by tokens in /usr/acs/conf/acs_global_config.ini.
Performing a search:  acs_mdb2::__construct : (db_XXXX) MDB2 Error: connect failed =>	An error occurs in the database[XXXX] section of module's ini configuration file	Check and correct the database[XXXX] section of module's ini configuration file  Check that the database is reachable and working.  N.B. In ini configurations files tokens of type <XXX> are replaced by tokens in /usr/acs/conf/acs_global_config.ini.
On module loading maps is not loaded	The file mapConfig.xml is not properly configured.	Check the file /var/www/html/SibillaWebSite_SINBAD_CSN_DC/ web/sinbad_csn_dc_config/mapConfig.xml (or /var/www/html/SibillaWebSite/SibillaWebSite_EMSA_POR/ emsa_por_config/mapConfig.xml).
The user gets:  Can not download product. Please retry or contact administrator.	An error occurs in downloading eoscene geotiff.	Check that the geoserver wcs service is working. Check that the geoserver wcs service (WCS_SERVER) is properly configured in /usr/acs/conf/acs_global_config.ini
The user gets:  Can not download shape file. Please retry or contact administrator.	An error occurs in downloading os shape file.	Check that ogr2ogr with oci extension works correctly.

During ais service search: 'The server doesn't respond'	The ais service is not responding	Check the AIS service availability. Check that the STIRES_WFS_PROXY_SERVER is properly configured in /usr/acs/conf/ acs_global_config.ini
Meteo layers (ice concentration, sea current, etc.) associated to OS and scene detail are not loaded	Geoserver is not serving properly layers  N.B. They are red in layers list.	Check the geoserver status using the geoserver web console.

## ANNEXES

## 9 ANNEX B: ACS\_GLOBAL\_CONFIG file

Parameter	Description	Example
WMS_SERVER	Address of WMS Service	/javabridge/acs/WMServer/CustomWms.php
WCS_SERVER	Address of WCS Service	https://csndc-pp.emsa.europa.eu/geoserver/wcs
STANDING_ORDER_URL	FTP address of Standing Order basket, as defined in PDS OH_PRF_INT reception policy	ftp://opemsa:12qwas@ppmas01
STANDING_ORDER_LAND_AREA	FTP input basket path for the Standing orders	raid0/opemsa/ftpInBasket
CUSTOM_WMS_SERVER_URL	External address to WMS Server	https://csndc-pp.emsa.europa.eu/geoserver/wms
BL_CUSTOM_WMS_SERVER_URL	Internal address to WMS Server	http://pcsn:7021/geoserver/wms
STIRES_WFS_PROXY_SERVER	URI to the ACS proxy for the STIRES service	/javabridge/acs/StiresWFSProxy.php
BL_STIRES_WFS_PROXY_SERVER	URI to the ACS proxy for the STIRES service from Business Layer	http://pcsn:7021/javabridge/acs/StiresWFSProxy.php

BL_STIRES_EXTERNAL_ADDRESS	Connection parameters for the STIRES external service	http://pwls43:7065/SSN_STIRES
BL_STIRES_EXTERNAL_USER	User name for STIRES external service	CLEANSEANET
BL_STIRES_EXTERNAL_PASSWORD	Password for STIRES external service	xxxxxx
CSN_STIRES_IMDATE_SUBSCRIPTION_USER	User for connecting to IMDATE	BILL
CSN_STIRES_IMDATE_SUBSCRIPTION_REST_USER	User for the rest call to IMDATE (not used at the moment)	bill@imdate.com
CSN_STIRES_IMDATE_SUBSCRIPTION_REST_PASSWORD	Pwd for the rest call to IMDATE (not used at the moment)	12qwas
CSN_STIRES_IMDATE_SUBSCRIPTION_REST_URL	URL for subscription to IMDATE	http://iwls55:7002/imdate-distribution-services-war/servlet/distribution
CSN_STIRES_IMDATE_SUBSCRIPTION_AGGREGATOR_TYPE	Type of aggregation	PositionCDFAggregator
CSN_STIRES_IMDATE_SUBSCRIPTION_AGGREGATOR_BLOCK_SIZE	Block size for the aggregation	200
CSN_STIRES_IMDATE_SUBSCRIPTION_ITEM_TYPE	Type of item	CDFPosition
CSN_STIRES_IMDATE_SUBSCRIPTION_TYPE	Type of subscription	FTPDistributor
CSN_STIRES_IMDATE_SUBSCRIPTION_FTP_USER	User for the FTP transfer	opemsa
CSN_STIRES_IMDATE_SUBSCRIPTION_FTP	Pwd for	12qwas

P_PASSWORD	the FTP transfer	
CSN_STIRES_IMDATE_SUBSCRIPTION_FTP_HOST	Host for FTP transfer	tpmas02
CSN_STIRES_IMDATE_SUBSCRIPTION_FTP_PORT	Port for FTP transfer	21
CSN_STIRES_IMDATE_SUBSCRIPTION_FTP_PATH	Path of FTP data transfer	imdate
CSN_STIRES_LOCAL_INPUT_PATH	Local path where CSN is retrieving the data	/raid0/opemsa/imdate/
CSN_STIRES_IMDATE_SOAP_SERVICE_USER	User of the IMDATE Track service	BILL
CSN_STIRES_IMDATE_SOAP_SERVICE_ENDPOINT	Endpoint of the IMDATE track service	http://iwl55:9001/imdatews/services/tracks
CSN_STIRES_OUTPUT_URL	URL where to place the GML files created by CSNDC	ftp://opemsa:12qwas@tpmas02/raid0/opemsa/stires-output
WMS_PROXY_PATH	WMS service address for Sibilla's Proxy service	/javabridge/acs/WMSServer
CSNDC_SINBAD_CONFIG	URI to WEB ORUS config directory (xml config files)	/sibilla-static/sinbad_csn_dc_config/
POR_SINBAD_CONFIG	URI to POR/ALE RTING ORUS config directory	/sibilla-static/ems_por_config/

	(xml config files)	
CMAP_WMS_URL	External URL to CMAP Service	https://csndc.emsa.europa.eu/cmapcluster2
BL_CMAP_WMS_URL	Internal URL to CMAP Service	http://cmapcluster2/CMAPWMS/wms.ashx
CWS_SERVER	Internal URL to CMAP Service	http://pcsn:7021/vcat-csw/services
ORACLE_OIL_SPILL_USER	OilSpill	DGRFTRUSR
ORACLE_OIL_SPILL_PWD	Oracle	xxxxxx
ORACLE_OIL_SPILL_HOST	Connecti	prac1
ORACLE_OIL_SPILL_PORT	on	1535
ORACLE_OIL_SPILL_DB	Paramete	CSN111
	rs	
ORACLE_EO_SCENE_USER	EO Scene	DGRBRMUSR
ORACLE_EO_SCENE_PWD	Oracle	xxxxxx
ORACLE_EO_SCENE_HOST	Connecti	prac1
ORACLE_EO_SCENE_PORT	on	1535
ORACLE_EO_SCENE_DB	Paramete	CSN111
	rs	
ORACLE_WUP_USER	GIS	WUPUSR
ORACLE_WUP_PWD	Viewer	xxxxxx
ORACLE_WUP_HOST	Oracle	prac1
ORACLE_WUP_PORT	Connecti	1535
ORACLE_WUP_DB	on	CSN
	Paramete	
	rs	
DAM_POR_DBTYPE	POR	oci8
DAM_POR_USER	Oracle	PORUSR
DAM_POR_PWD	Connecti	xxxxxx
DAM_POR_HOST	on	prac1
DAM_POR_PORT	Paramete	1535
DAM_POR_DB	rs	CSN
DAM_DATAGEN_USER	Data	csn_ro
DAM_DATAGEN_PWD	Generato	csn_ro
DAM_DATAGEN_HOST	r Oracle	lisora1
DAM_DATAGEN_PORT	Connecti	1535
DAM_DATAGEN_DB	on	STMID
	Paramete	
	rs	
DATAGEN_USER	Paramete	opemsa
DATAGEN_PWD	rs to	xxxxxx
DATAGEN_HOST	address	pwls09.emsa.local
	the Data	
	Generato	
	r	
DATAGEN_PATH_URI	URI	"ssh2.sftp://oracle:oracle@pwls09.emsa.local/var/tmp"

	where the generated date is stored (normally /var/tmp of the host machine)	
DATAGEN_SAR_IMAGES_PATH	Path to some test SAR Images	/mnt/migration_sar_images/
DAM_OAS_USER	Alerting Oracle Connecti on Paramete rs	OASUSR
DAM_OAS_PWD		xxxxxx
DAM_OAS_HOST		prac1
DAM_OAS_PORT		1535
DAM_OAS_DB		CSN
OAS_TELECOM_PROVIDER	Telecom provider alias: if "acs", the system will route SMS/MM S via email test accounts	acs
OAS_JMS_SERVLET_ADDRESS	URI of the servlet allowing PHP applications (not running on weblogic thus not having the JAVA object ) to send messages to the JMS Queue	http://pcsn:7021/javabridge/acs/jms_servlet.php
DAM_PDS_DBTYPE	PDS Oracle Connecti on Paramete rs	oci8
DAM_PDS_USER		pdsusr
DAM_PDS_PWD		xxxxxx
DAM_PDS_HOST		prac1
DAM_PDS_PORT		1535
DAM_PDS_DB		CSN

DAM_ISM_DBTYPE	ISM	oci8
DAM_ISM_USER	Oracle	ismusr
DAM_ISM_PWD	Connecti	xxxxxx
DAM_ISM_HOST	on	prac1
DAM_ISM_PORT	Paramete	1535
DAM_ISM_DB	rs  (Deprecat ed)	CSN
DAM_PDS_DBTYPE	JOU	oci8
DAM_JOU_USER	Oracle	jouws
DAM_JOU_PWD	Connecti	xxxxxx
DAM_JOU_HOST	on	prac1
DAM_JOU_PORT	Paramete	1535
DAM_JOU_DB	rs	CSN
DAM_COM_DBTYPE	COM	oci8
DAM_COM_USER	Oracle	COM
DAM_COM_PWD	Connecti	xxxxxx
DAM_COM_HOST	on	prac1
DAM_COM_PORT	Paramete	1535
DAM_COM_DB	rs	CSN
DAM_FINSYS_DBTYPE	FINSYS	oci8
DAM_FINSYS_USER	Oracle	FINSYS
DAM_FINSYS_PWD	Connecti	xxxxxx
DAM_FINSYS_HOST	on	prac1
DAM_FINSYS_PORT	Paramete	1535
DAM_FINSYS_DB	rs	CSN
DAM_WFS_SERVICE_URL	URI of Deegree WFS for WEBCATF EEDER	http://pcsn:7021/deegree-wfs/services
DAM_CSW_SERVICE_URL	URI of Deegree CSW for WEBCATF EEDER	http://pcsn:7021/vcat-csw/services
RL_WMS_SERVICE_REST_URL	URI of Geoserve r REST web services for WEBCATF EEDER	http://pcsn:7021/geoserver/rest
RL_WMS_SERVICE_REST_USR	User for calling the Geoserve r REST service	admin
RL_WMS_SERVICE_REST_PWD	Pwd for calling	geoserver

	the Geoserver REST service	
RL_NFS_RASTER_REL_PATH	Relative path to Geoserver raster data	../mnt/netcdf_rep
SES_SERVICE_URL	URL where to send to notification messages	http://twls11:8080/ses-main-1.0-SNAPSHOT/services/SesPortType
RL_NFS_RASTER_PATH	Path to Geoserver raster data	/raid0/opemsa/netcdf_repository
ISM_SERVICE_USER	Ism Direct Upload Service parameters	oracle
ISM_SERVICE_GROUP		oinstall
RL_ISM_SERVICE_HOST		ppmas01
ISM_SERVICE_PORT		82
ISM_FTP_USR		opemsa
ISM_FTP_PWD		xxxxxxxx
RL_GDALINFO_FULLPATH	path to the GDAL gdalinfo program	/usr/bin/gdalinfo
RL_ISM_VFS_BASEPATH	path of the ISM NFS Mount Point	/ism_store/
RL_ISM_VFS_DEFAULT_PERM_DIR	Default permissions for directories created in the ISM.	02775
RL_ISM_VFS_DEFAULT_PERM_FILE	Default permissions for files created in the ISM.	0664
RL_ISM_VFS_DEFAULT_GROUP	Default group for files created in	Oinstall

	the ISM.	
OFFLINE_ARCHIVE_PATH	Path where data are archived	/shared_nfs/archive
OFFLINE_ARCHIVE	Flag indicating if automatic archiving is activated.	On
OILSPILL_MODEL_WFS_ADDRESS	Address where external oil spill models will retrieve oil spill data. It must be reachable externally.	http://217.111.153.44:7021/deegree-wfs/services
EMSA_SMTP_SERVER	Parameters used by the emailing systems (OAS, POR, etc)	192.168.117.60
EMSA_EMAIL_FROM_ADDRESS	Address that will appear on the emails sent	"csn-dc@emsa.europa.eu"
EMSA_EMAIL_FROM_TITLE	Name that will appear on the emails sent	"EMSA CleanSeaNet"
EMSA_MSS_EMAIL	Address of the Email used to send Voice alert to operators	"MaritimeSupportServices@emsa.europa.eu"
EMSA_SMS_TEST_EMAIL	Address	"csndc-test-alert@emsa.europa.eu"

	of the Email used to send simulated SMS/MM S	
EMSA_VOICE_TEST_EMAIL	Address of the Email used to send simulated Voice alert to operators	"Samuel.DJAVIDNIA@emsa.europa.eu"
ALERT_BCC_EMAIL_ADDRESS	Address of the BCC Email used to send all messages	"csndc-test-alert@emsa.europa.eu"
EMSA_JMS_QUEUE	Name of the JOU JMS QUEUE	"csndc.queues.JOUWSQueue"
EMSA_JMS_QUEUE_FINANCIAL	Name of the FINANCIAL JMS QUEUE	"csndc.queues.FINSYSWSQueue"
POR_DEFAULT_SERVICE_PROVIDER	Default service provider and tasking area	"E-GEOS"
POR_DEFAULT_TASKING_AREA		"Planning area 5"
FO_FINANCIAL_APPROVAL_URL	Financial System approval URL for Financial Officer	"/group/cleanseanet/financial?FINSYS_MODE=2&TASK={TASK_IDENTIFIER}"
AO_FINANCIAL_APPROVAL_URL	Financial System approval URL for Authorisation Officer	"/group/cleanseanet/financial?FINSYS_MODE=2&TASK={TASK_IDENTIFIER}"
FO_TASKING_EMAILS_URL	URL for creating emails for FO	"/group/cleanseanet/financial?FINSYS_MODE=3&TASK={TASK_IDENTIFIER}"

	tasking	
AO_TASKING_EMAILS_URL	URL for creating emails for AO tasking	"/group/cleanseanet/financial?FINSYS_MODE=3&TASK={TASK_IDENTIFIER}"
FINANCIAL_BUDGET_URL	URL to invoke FinSys Compute Budget	"/group/cleanseanet/financial?FINSYS_MODE=1&MESSAGE={MESSAGE_IDENTIFIER}"
FINANCIAL_SYSTEM_WSDL	Address to FinSys WSDL	"http://pcsn:7021/csndc-finsys-ws/csndc-finsys-ws?WSDL"
JOU_WSDL	Address to JOU WSDL	"http://pcsn:7021/csndc-jou-ws/csndc-jou-ws?WSDL"
FINANCIAL_OFFICIER_TO_RECIPIENT	POR	"csn-fo@emsa.europa.eu"
FINANCIAL_OFFICIER_CC_RECIPIENT	Report	"csn-fo_cc@emsa.europa.eu"
AUTHORISATION_OFFICIER_CC_RECIPIENT	Accounts	"csn-ao_cc@emsa.europa.eu"
REPORT_APPROVED_CC_RECIPIENT		"csn-ra_cc@emsa.europa.eu"
POR_PORTAL_URL		"https://csndc.emsa.europa.eu/group/cleanseanet/planning"
WUP_PORTAL_URL		"https://csndc.emsa.europa.eu/group/cleanseanet/gisviewer"
EMSA_JMS_PROVIDER_URL	address of theJMS QUEUE	"t3://pwls09:7021,pwls10:7021"
BL_ACSPLIBRES_PATH	Business Logic URI of the ACSPhLibRes directory	/javabridge/acs
BL_SIBILLA_BROKER	Business Logic URI of the sibilla_broker script	/javabridge/acs/sibilla_broker.php
JAVA_INC_PATH	Path to the Java.inc file	/var/www/html/Java.inc
HASH_SERVER_ADDRESS	URI of the Hash for SP Simulator POR Interface	"http://pcsn:7021/javabridge/acs/csn_hash_server.php?wsdl=1"
EXTERNAL_HASH_SERVER_ADDRESS	URI of the Hash Server for external users	"https://csndc.emsa.europa.eu:444/javabridge/acs/csn_hash_server.php"

PDS_INPUT_BASKET_URI	URI to one of the PDS Input Baskets	sftp://opemsa:xxxxxxx@psftp:2221/.
OIM_USER_EDIT_URI	URI to the page for editing the current user.	"http://twls11/xlWebApp/createUserCustom.do?method=viewUserDetails&loginID=USER_LOGIN&application=CSNDC&userAction=new"
MAX_ALLOWED_SP_DELTA_TIME_SECONDS	Deprecat ed	
QNO_POR_TIME_TOLERANCE_HOURS	Time window extension around POR start/stop time to be used in QNO (expresse d as hours)	24
REPORT_SERVLET_URL		<a href="http://pcsn:7021/report/alertReport">http://pcsn:7021/report/alertReport</a>
GATEWAY_END_POINT	Address of the External Gateway. php	"https://csndc.emsa.europa.eu/javabridge/acs/ACSAmfPhp/gateway.php"
BUSINESS_LOAD_BALANCER_NAME	Name and alias of the Business Layer Load Balancer	Pcsn
BUSINESS_LOAD_BALANCER_ALIAS		Pcsn
BUSINESS_CLUSTER_SERVERS_PORT	Servers and ports of the Business Cluster	7021
BUSINESS_CLUSTER_SERVERS_LIST		pwls09:7021,pwls10:7021
PORTAL_LOAD_BALANCER_NAME	Name and alias of the Business Layer Load Balancer	csndc.emsa.europa.eu
PORTAL_LOAD_BALANCER_ALIAS		csndc.emsa.europa.eu
PORTAL_CLUSTER_SERVERS_PORT	Servers and ports of the	80
PORTAL_CLUSTER_SERVERS_LIST		pwls11:7091,pwls12:7091

	Portal Cluster	
PREIMP_PDS_TEMPORARY_DIR	Settings for the PreImport	/raid0/opemsa/ftpInBasket/_temporary_
PREIMP_PDS_BADFILES_DIR		/raid0/opemsa/badfiles
PREIMP_PDS_FINAL_DIR		/raid0/opemsa/ftpInBasket
SP_FTP_ADDADDRESS	The following settings are for FTP or SFTP	psftp.emsa.local
SP_FTP_PORT		2221
KSAT_FTP_USER	KSAT Parameters	ksat
KSAT_FTP_PWD		xxxxxx
KSAT_FTP_MODE		SFTP
KSAT_FTP_REMOTE_DIR		.
CLS_FTP_USER	CLS Parameters	cls
CLS_FTP_PWD		xxxxxx
CLS_FTP_MODE		SFTP
CLS_FTP_REMOTE_DIR		.
EGEOS_FTP_USER	EGEOS Parameters	egeos
EGEOS_FTP_PWD		xxxxxx
EGEOS_FTP_MODE		SFTP
EGEOS_FTP_REMOTE_DIR		.
EDISOFT_FTP_USER	EDISOFT	edisoft
EDISOFT_FTP_PWD		xxxxxx
EDISOFT_FTP_MODE		SFTP
EDISOFT_FTP_REMOTE_DIR		.
MYOCEAN_EU_CHLORO_FTP_ADDRESSES	Europe Chlorophyll	hermes.acri.fr
MYOCEAN_EU_CHLORO_FTP_PORT		21
MYOCEAN_EU_CHLORO_FTP_USER		myocean
MYOCEAN_EU_CHLORO_FTP_PWD		xxxxxx
MYOCEAN_EU_CHLORO_FTP_MODE		FTP
MYOCEAN_EU_CHLORO_FTP_REMOTE_DIR		"/EURO_2KM/NRT/<YEAR>_<MONTH>_<DAY>"
MYOCEAN_EU_SEA_TEMP_FTP_ADDRESSES	Europe Sea Temperature	efp.ifremer.fr
MYOCEAN_EU_SEA_TEMP_FTP_PORT		21
MYOCEAN_EU_SEA_TEMP_FTP_USER		top99tip
MYOCEAN_EU_SEA_TEMP_FTP_PWD		xxxxxxx
MYOCEAN_EU_SEA_TEMP_FTP_MODE		FTP
MYOCEAN_EU_SEA_TEMP_FTP_REMOTE_DIR		"/cersat-rt/project/myocean/sst-tac/l3/eur/meteo-france/multi-sensor/<YEAR>/<DAYOFYEAR>"
MYOCEAN_BA_SEA_ICE_FTP_ADDADDRESS	Baltic Sea Ice	mersea.met.no
MYOCEAN_BA_SEA_ICE_FTP_PORT		21
MYOCEAN_BA_SEA_ICE_FTP_USER		anonymous
MYOCEAN_BA_SEA_ICE_FTP_PWD		xxxxxxxxxxxx
MYOCEAN_BA_SEA_ICE_FTP_MODE		FTP
MYOCEAN_BA_SEA_ICE_FTP_REMOTE_DIR		/mersea/seaice/balticHR/

MYOCEAN_BA_CUR_FTP_ADDADDRESS	Baltic Currents	mersea.dmi.dk
MYOCEAN_BA_CUR_FTP_PORT		21
MYOCEAN_BA_CUR_FTP_USER		merseaftp
MYOCEAN_BA_CUR_FTP_PWD		xxxxxxx
MYOCEAN_BA_CUR_FTP_MODE		FTP
MYOCEAN_BA_CUR_FTP_REMOTE_DIR		/V0
MYOCEAN_NWS_CUR_FTP_ADDADDRESS	North West Shelf Currents	data.ncof.co.uk
MYOCEAN_NWS_CUR_FTP_PORT		21
MYOCEAN_NWS_CUR_FTP_USER		amh-ems
MYOCEAN_NWS_CUR_FTP_PWD		xxxxxxxxxxx
MYOCEAN_NWS_CUR_FTP_MODE		FTP
MYOCEAN_NWS_CUR_FTP_REMOTE_DIR		/nwshelf/NWS
MYOCEAN_BS_CUR_FTP_ADDADDRESS	Black Sea Currents	ftp.myoceanbsmfc.mhi.net.ua
MYOCEAN_BS_CUR_FTP_PORT		21
MYOCEAN_BS_CUR_FTP_USER		mfcbasmhi
MYOCEAN_BS_CUR_FTP_PWD		
MYOCEAN_BS_CUR_FTP_MODE		FTP
MYOCEAN_BS_CUR_FTP_REMOTE_DIR		/nwshelf/NWS
CSNDC_LIMIT_FB	Max retrieved records for a Feedback query	250
CSNDC_LIMIT_OS	Max retrieved records for an OilSpill query	250
CSNDC_LIMIT_EO	Max retrieved records for an EO Scene query	250
CSNDC_LIMIT_DS	Max retrieved records for a Detected Ships query	250
JREPORT_PATH	Path to Jasper reports	/shared_nfs/ems_a_jreports
JREPORT_JAVA_HOME	Java home for Jasper.	/oracle/wls/10.3.2/jrockit_160_14/
JREPORT_JDBC_URI	Connecti ons tring	jdbc:oracle:thin:@tora112:1521:TINST1

	for Jasper.	
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Special tokens for [x]WLS09

GLOBAL_TEMPORARY_DIR	Shared directory for upload	/mnt/shared_tmp
SCHEDULER_INSTANCE_ID	Alert Emailer Booking ID	9

Special tokens for [x]WLS10

GLOBAL_TEMPORARY_DIR	Shared directory for upload	/mnt/shared_tmp
SCHEDULER_INSTANCE_ID	Alert Emailer Booking ID	10

## **10 ANNEX C: procedure/script for checking the status of health of all processes that shall be nominally up and running**

The full list of processes to be monitored can be found in chapter 3.2 of this document.

## 11 ANNEX D: Rules to aggregate system messages into the HPBAC in order to achieve a more consolidated information

PDS ingestion chain can send to a M&C not only event messages but also status messages. These status messages can be used in order to get an aggregated view of the system.

What follow are the aggregation rules normally adopted by ACS Monitor & Control facility (MCF) COTS. These can be used as a good starting point in order to setup an aggregated view (synoptic view in MCF jargon) of the system.

The aggregation formulas make extensive use of hardware parameters gathered via SNMP protocol. These are reported in the form of SNMP[OID] where OID is the unique identifier of a given hardware resource. Depending on the hardware type, OIDs may be different from the ones reported. For every aggregation rule there will be three formulas for 2 possible conditions: Error & Warning.

Rule: Inventory (on PMAS)

ERROR: (OrderGenerator.PROCESS\_STATUS="ERROR" or down) OR  
(PackagerOptimiser.PROCESS\_STATUS="ERROR" or down) OR  
(DistributorGenerator.PROCESS\_STATUS="ERROR" or down) OR  
(Import.PROCESS\_STATUS="ERROR" or down) OR (WebCatFeeder.PROCESS\_STATUS="ERROR"  
or down) OR (crond is down) OR (vsftpd is down) OR (SP SFTPs not reachable)

WARNING: (Cleaner.PROCESS\_STATUS="ERROR" or down) OR  
(FTPEXport.PROCESS\_STATUS="ERROR" or down) OR (httpd is down)

Rule: PDS Processors (on MAW)

ERROR: (MAW1.TIDaemon.PROCESS\_STATUS="ERROR" or down) AND  
(MAW2.TIDaemon.PROCESS\_STATUS="ERROR" or down)

WARNING: (MAW1.TIDaemon.PROCESS\_STATUS="ERROR" or down) OR  
(MAW2.TIDaemon.PROCESS\_STATUS="ERROR" or down)

Rule: BusinessNode (on single WLS node)

ERROR: (WebLogic in ERROR or down) OR (ReportGenerator in ERROR) OR (Degree-WFS in  
ERROR) OR (GeoServer in ERROR) OR (VCAT-CSW in ERROR) OR (JOUWS in ERROR) OR  
(FINSYSWS in ERROR) OR (QBridge in ERROR) OR (crond is down) OR (httpd is down)

WARNING: (WebLogic in WARNING)

Rule: Business Layer (both WLS)

ERROR: (BusinessNode\_09 in ERROR) AND (BusinessNode\_10 in ERROR)

WARNING: (BusinessNode\_09 in ERROR) OR (BusinessNode\_10 in ERROR) OR (BusinessNode\_09 in WARNING) OR (BusinessNode\_10 in WARNING)

Rule: External Services

ERROR: (C-MAP Cluster not reachable)

WARNING: (SSN AIS Service not reachable)

Rule: Global PDS Chain

ERROR: (Inventory in ERROR) OR (ISM in ERROR) OR (PDS Processors in ERROR) OR (Business Layer in ERROR)

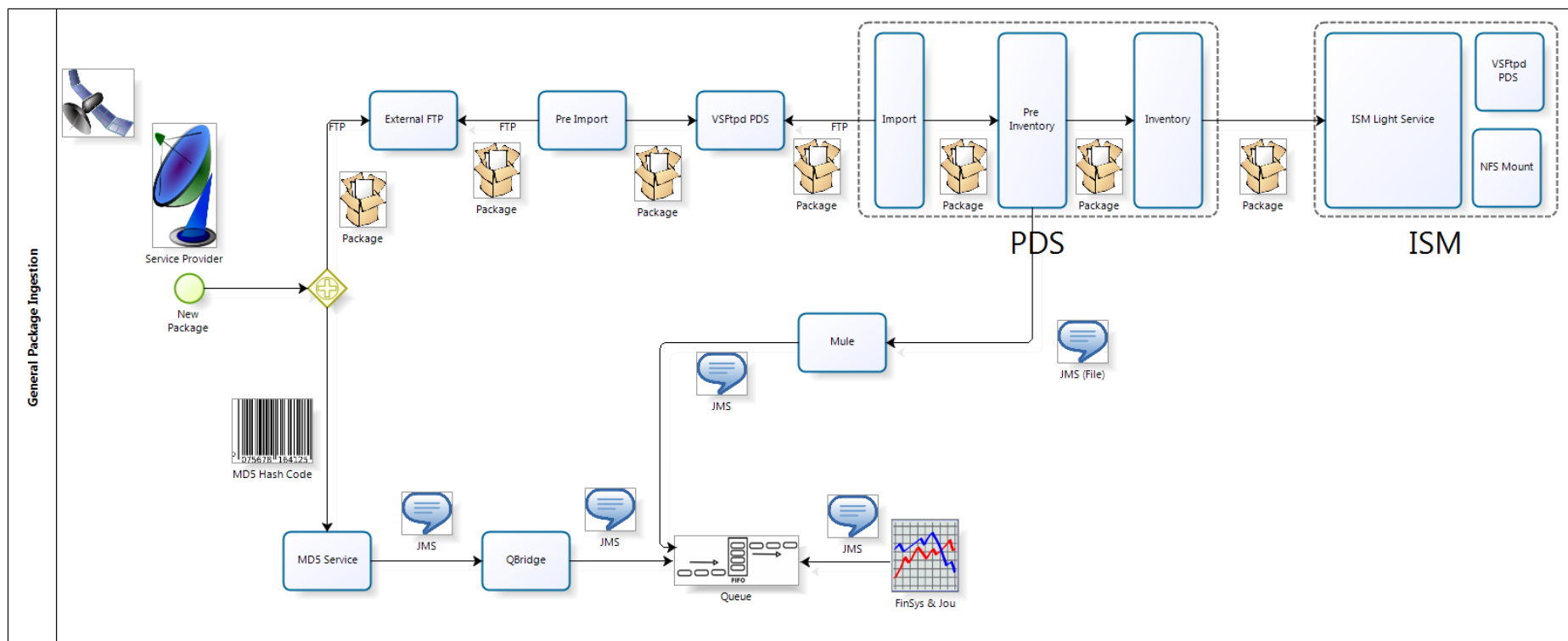
WARNING: (Inventory in WARNING) OR (ISM in WARNING) OR (PDS Processors in WARNING) OR (Business Layer in WARNING)

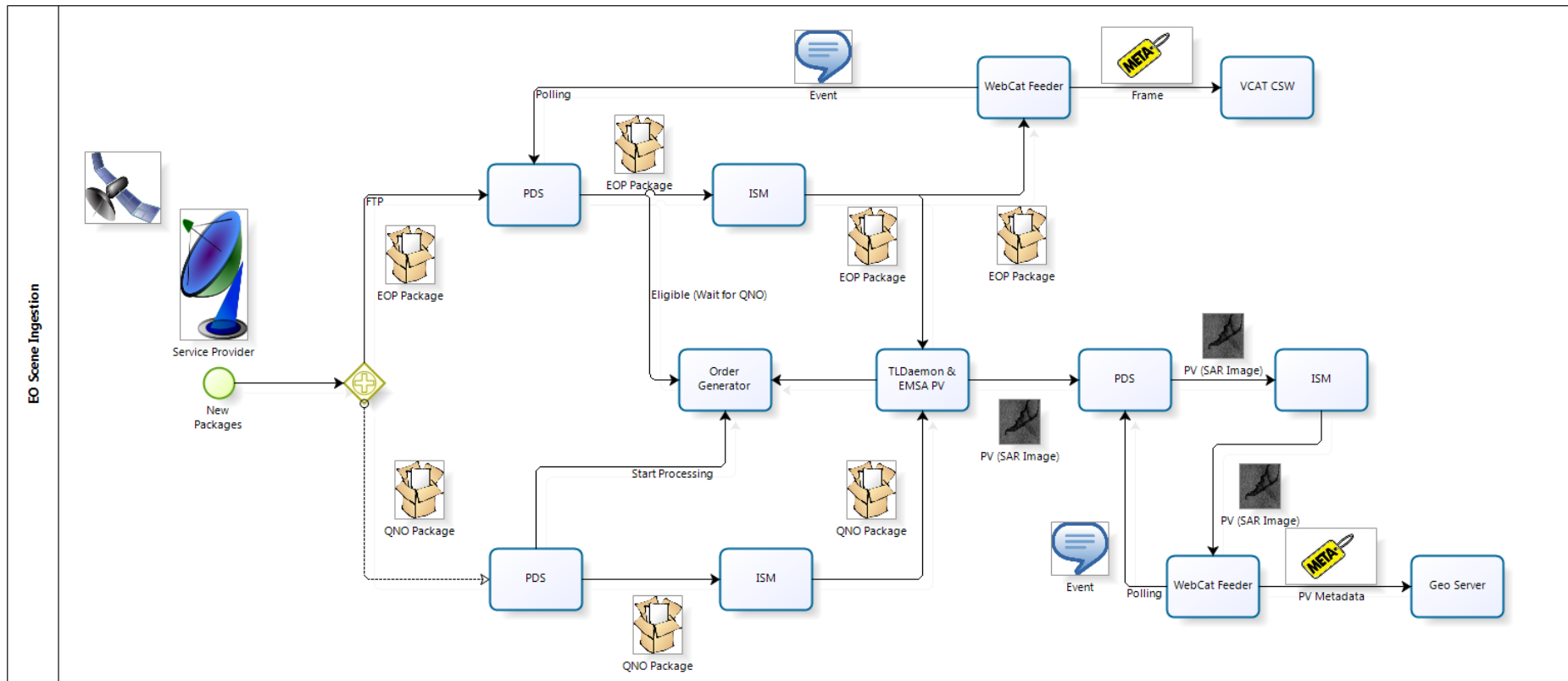
Rule: Portal

ERROR: (WGT in ERROR or down) OR (JOU Portlet in ERROR) OR (FINSYS Portlet in ERROR) OR (Sibilla JSP Portlet in ERROR) OR (Business Layer in ERROR)

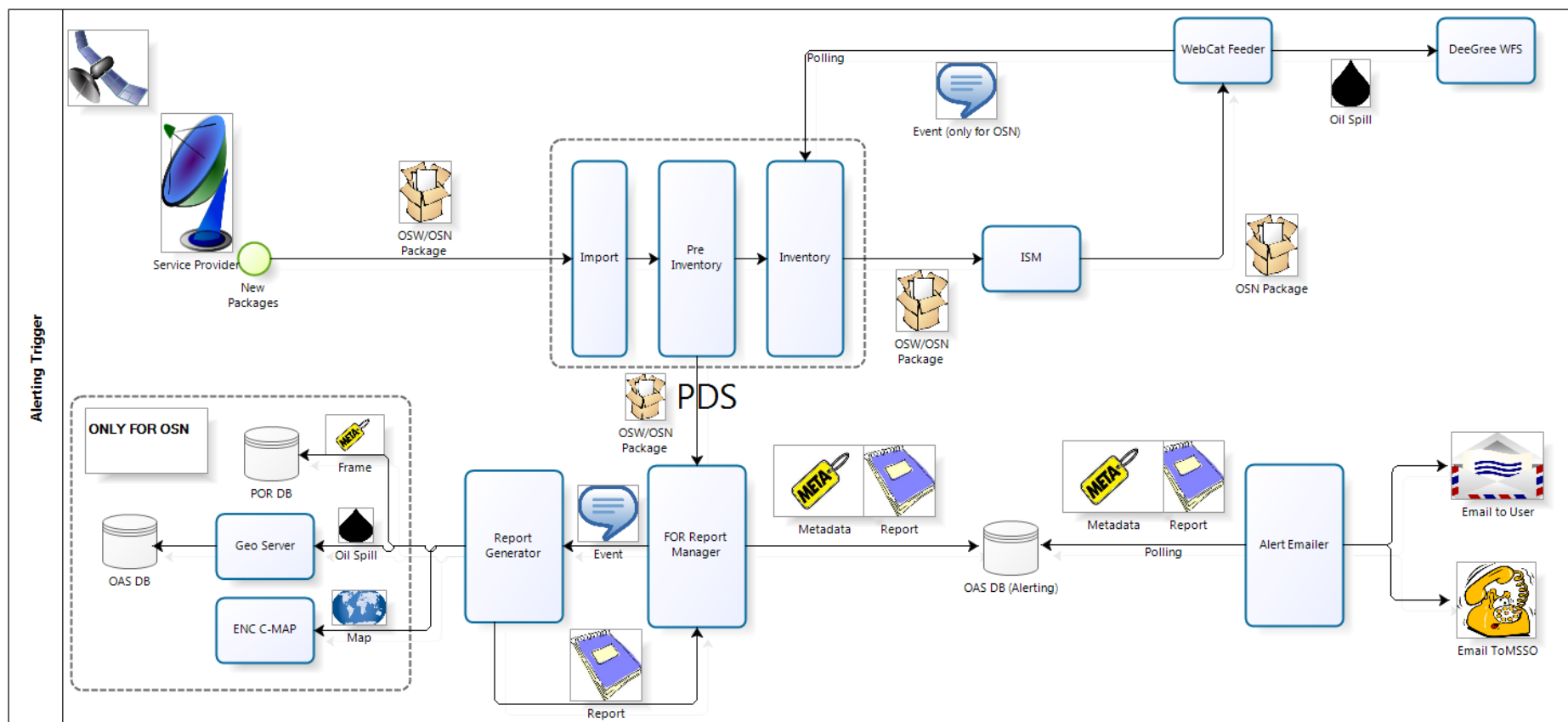
WARNING: (COM Portlet in ERROR)

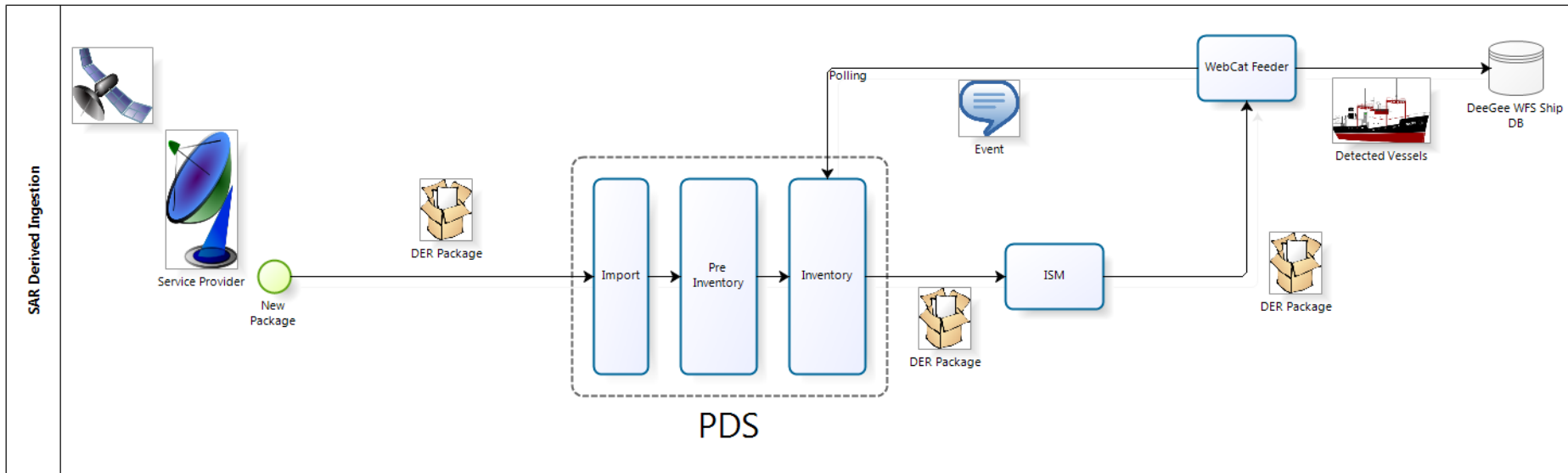
## 12 ANNEX E: Data flow diagrams

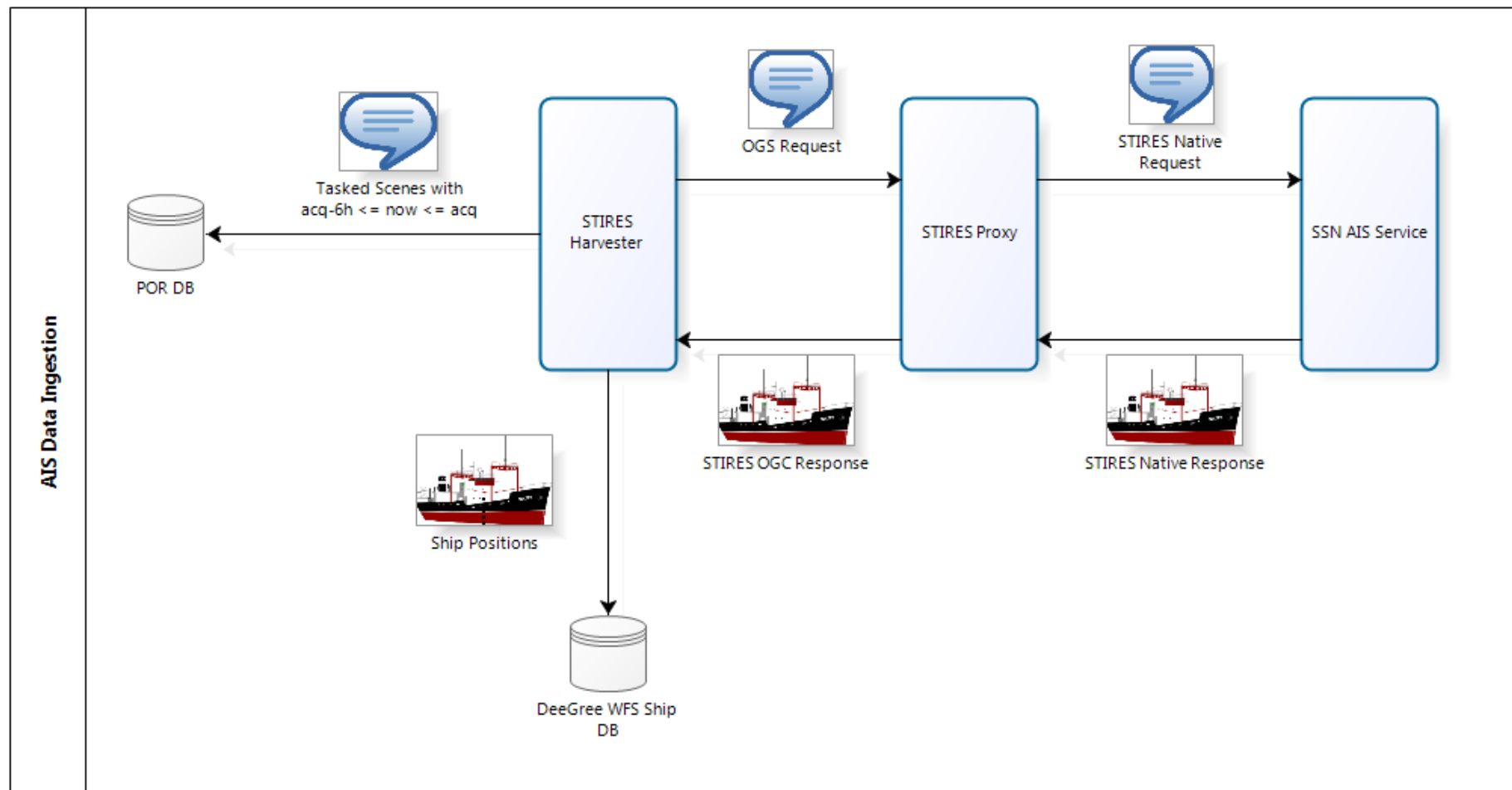




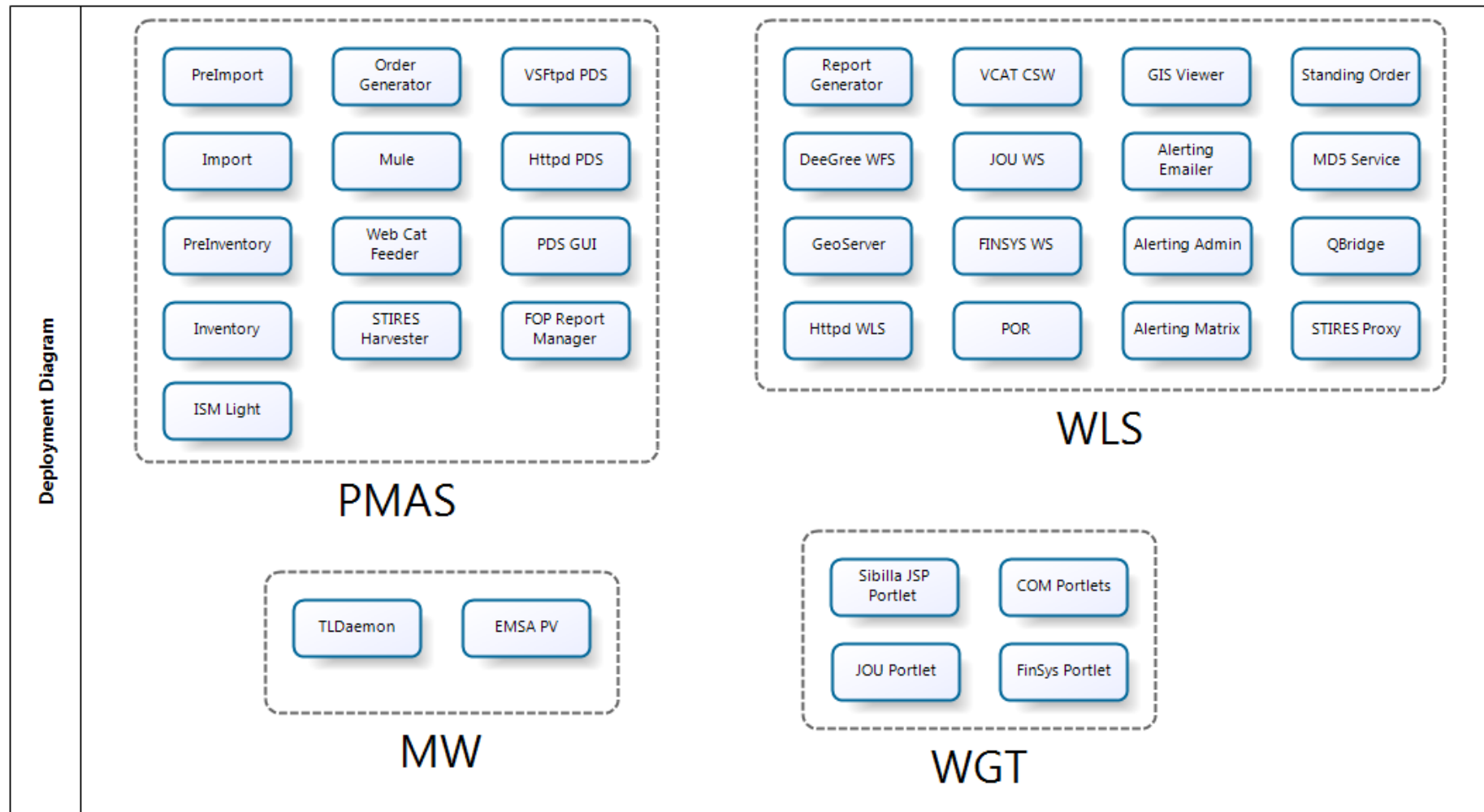
This diagram assumes that EOP is the first package to arrive.  
Should QNO arrive first, the order will be in status eligible and then will start upon arrival of the EOP.







## 13 ANNEX F: Deployment diagram





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