EU LRIT Data Centre System Architecture

1st LRIT Expert Group Meeting
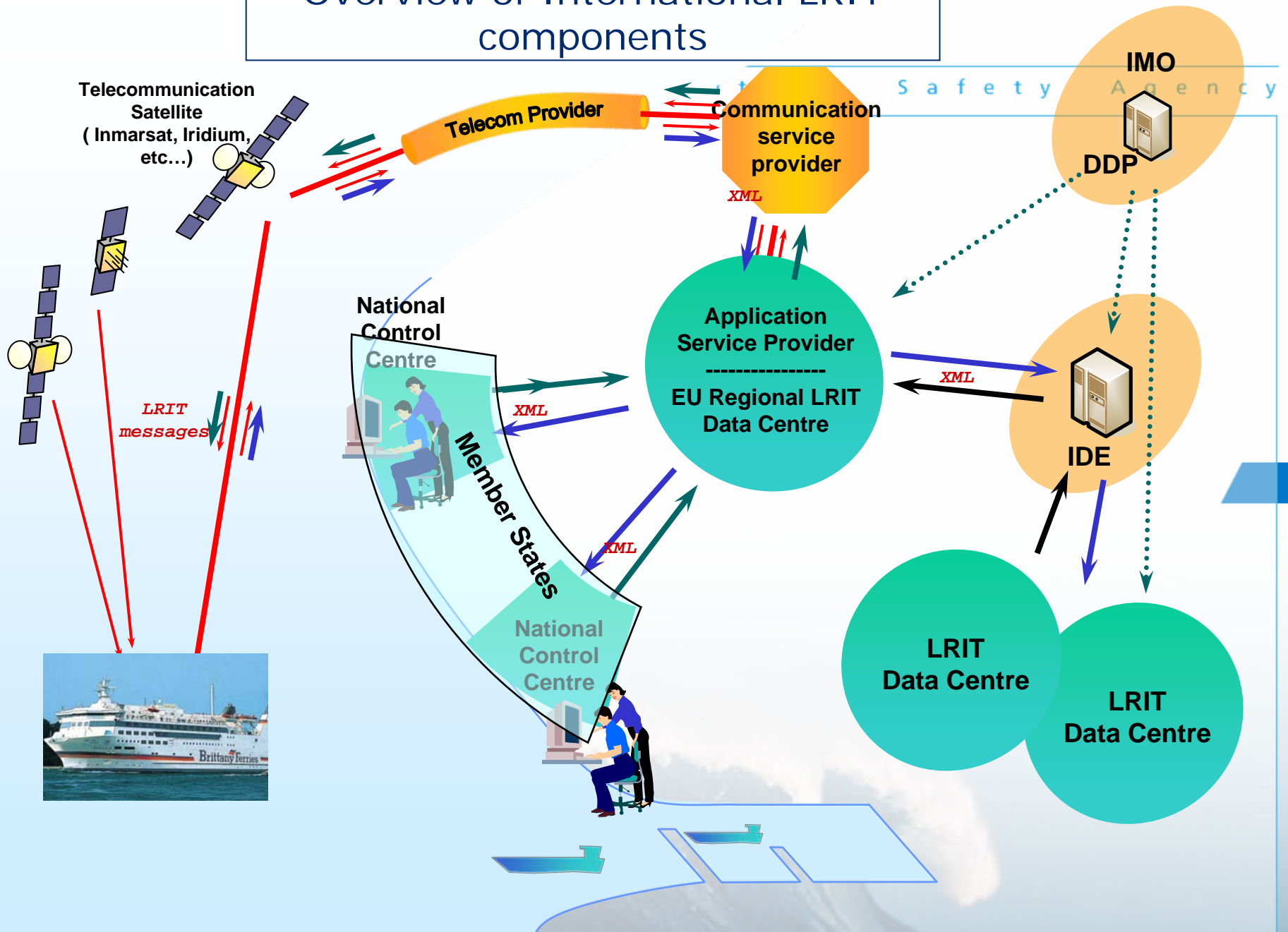## 25-26 February 2008
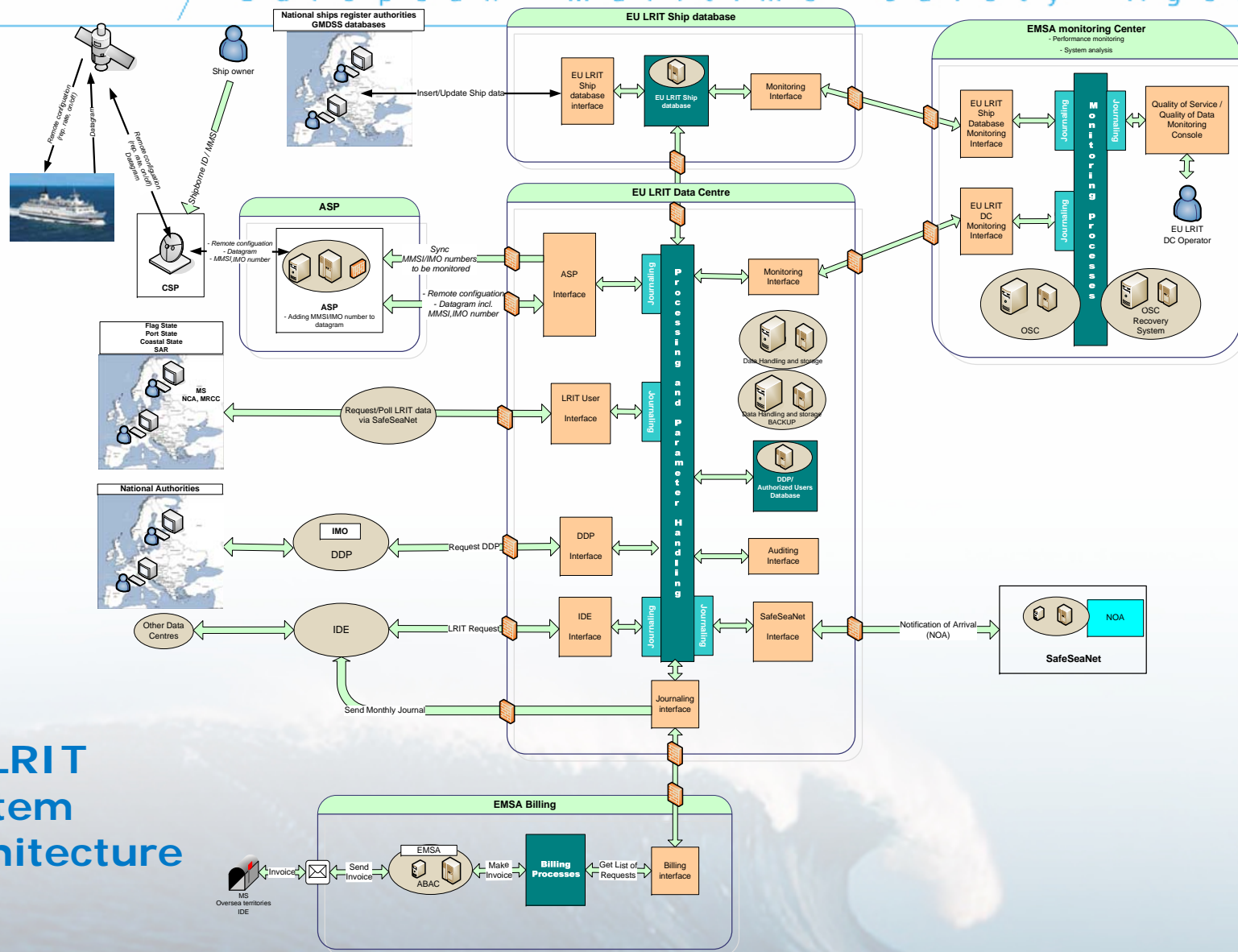
Yannick Texier

LRIT Task Force

Contents

- Overview of International LRIT components
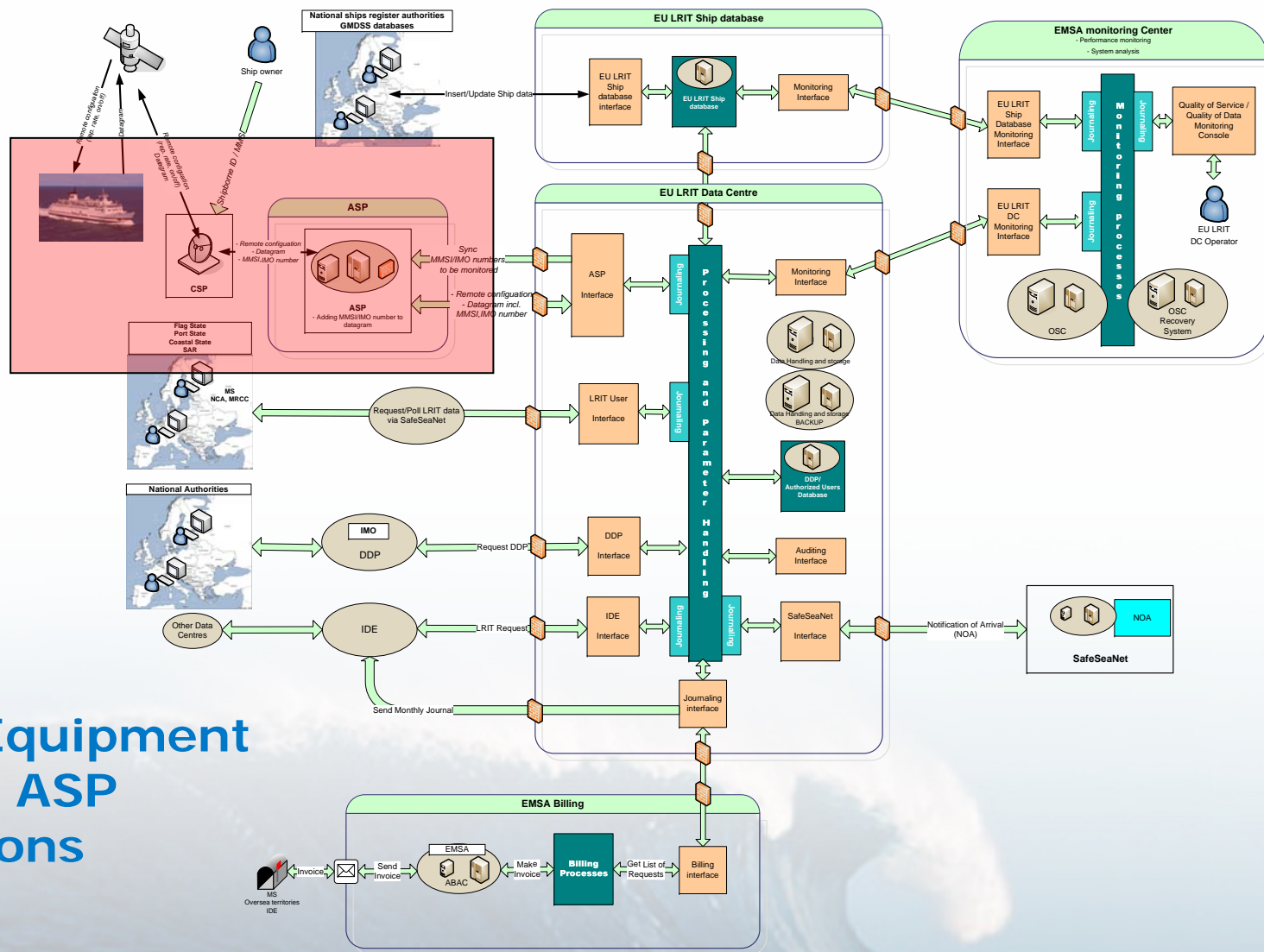
- EU LRIT System architecture
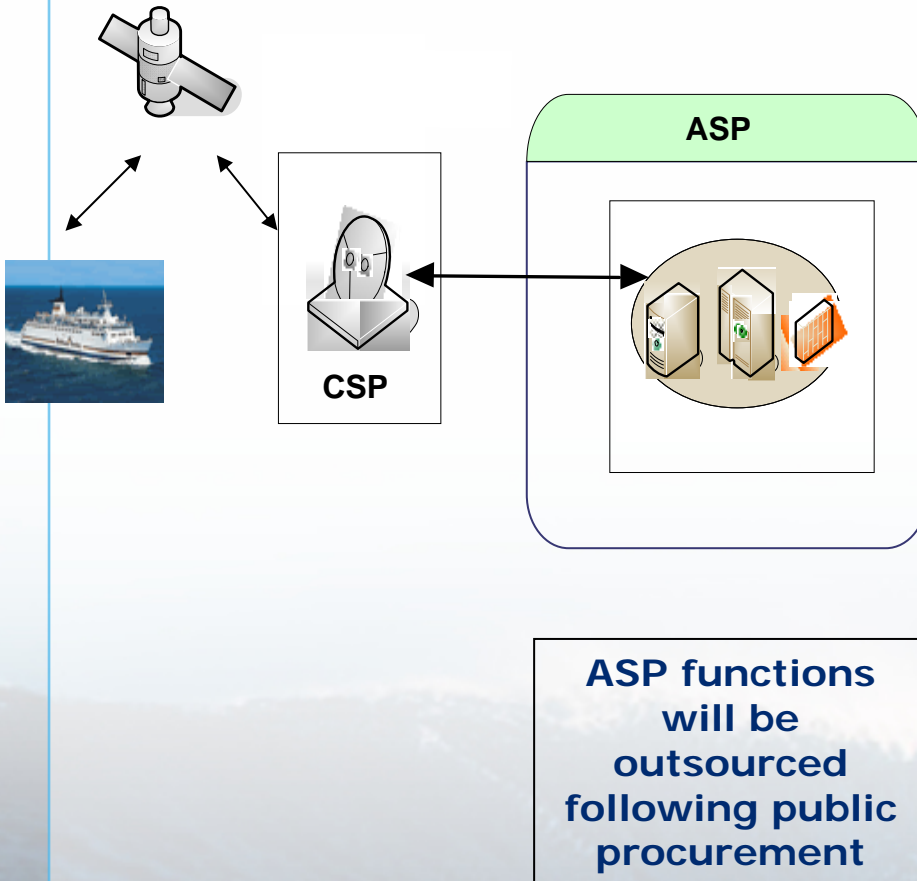
Overview of International LRIT components

EU LRIT
System
Architecture

4

Ship Equipment
CSP & ASP
functions

Shipborne equipment, CSP & ASP

ASP

CSP

ASP functions will be outsourced following public procurement
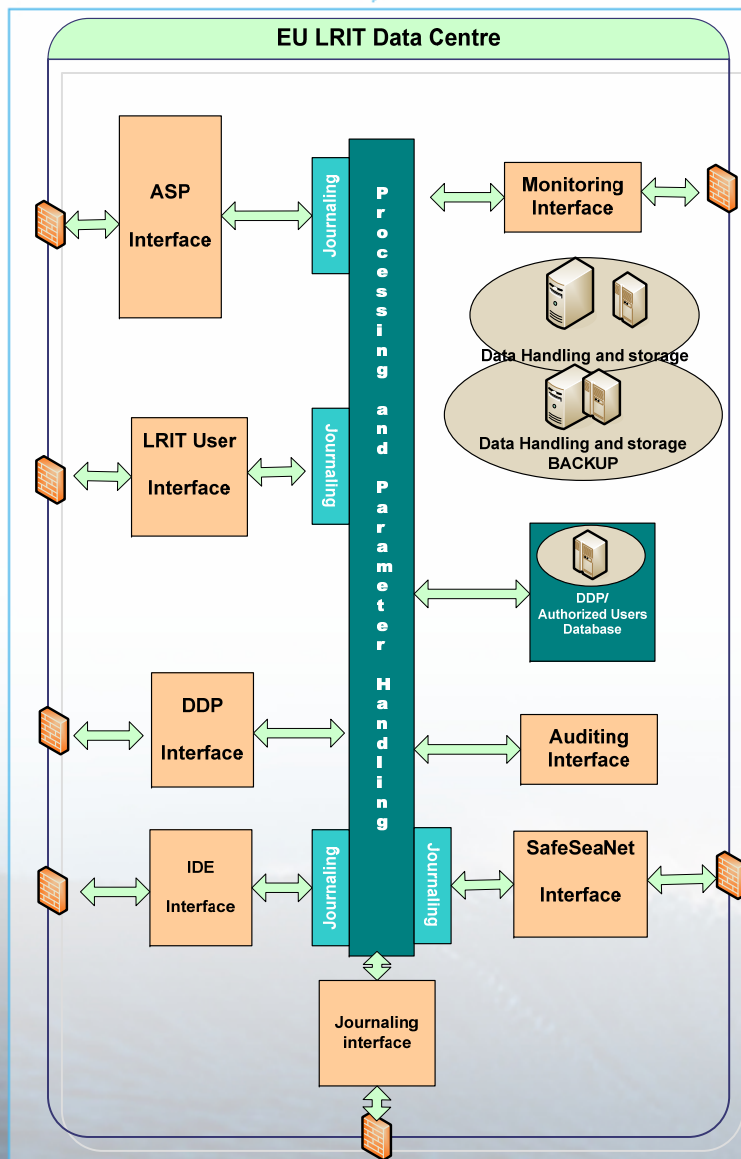
Basic ASP functions

- Remote Integration shipborne equipment into DC

- Ensure LRIT messaging

- Route LRIT message in secure manner
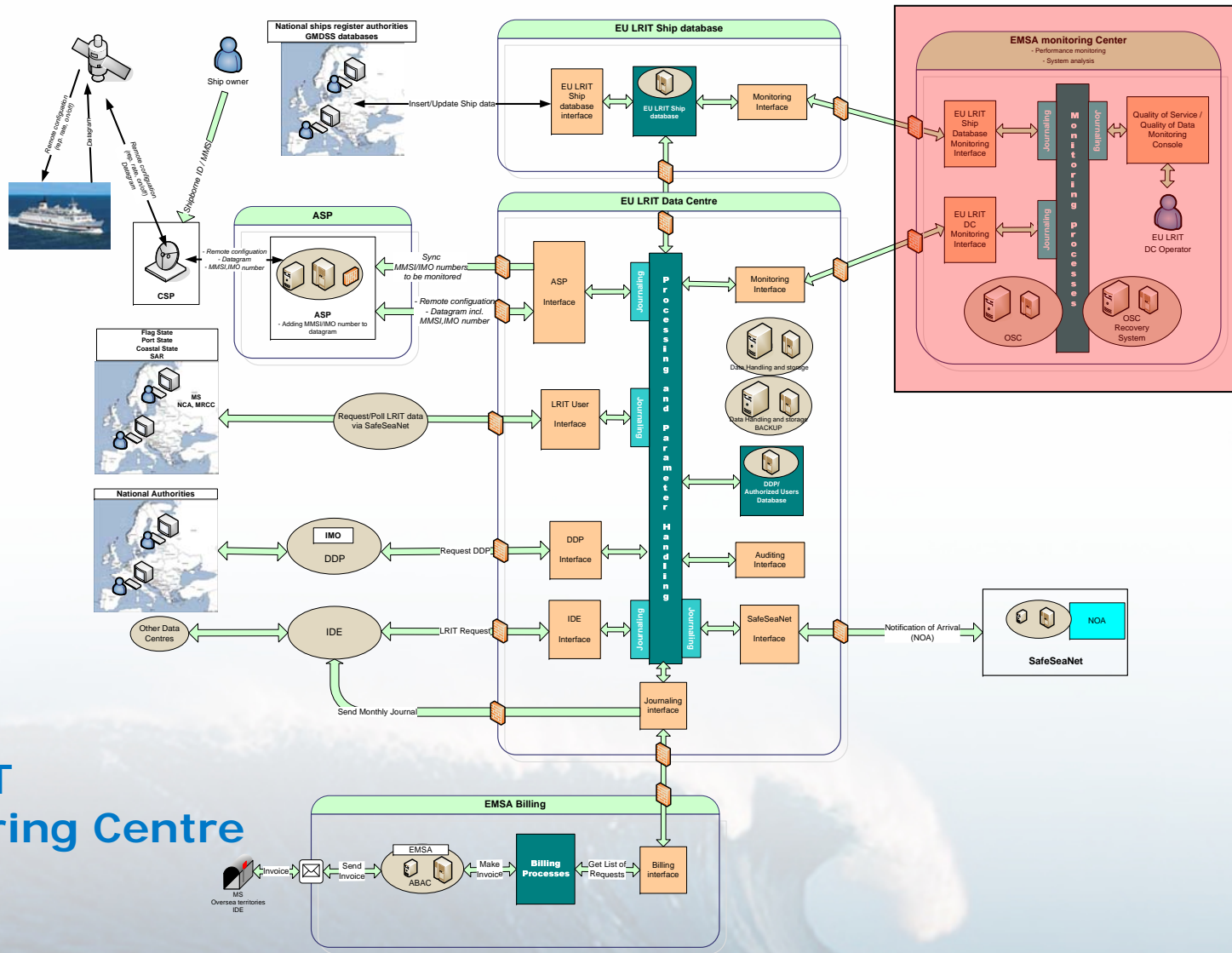
- Complete the ship identification

6

EU LRIT
Data Centre

EU LRIT Data Centre

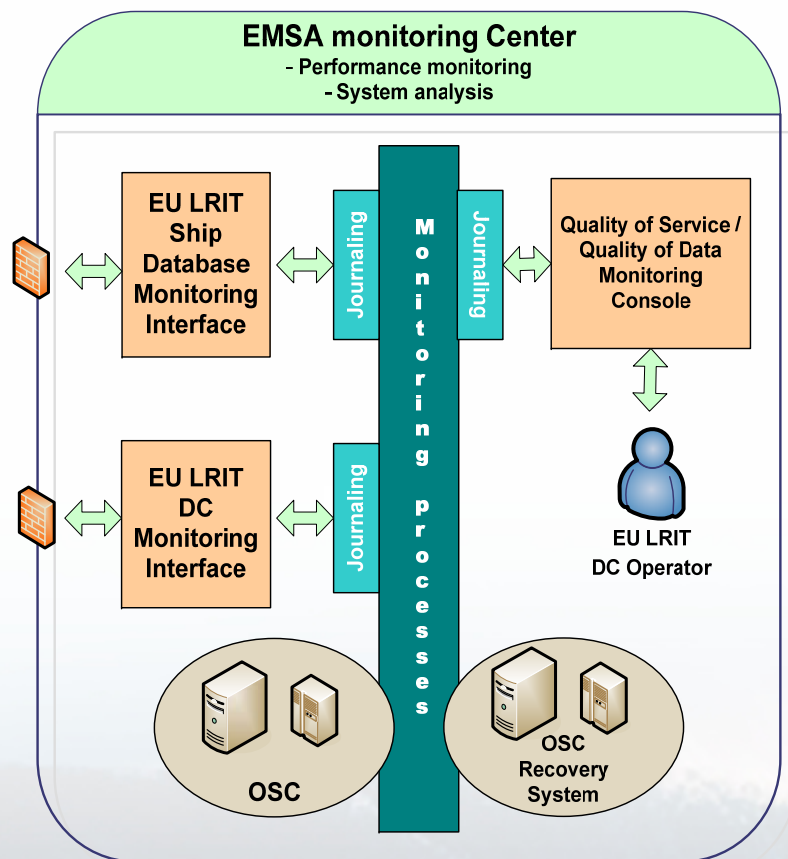- To collect, store, & archive LRIT reports received from ASP

- Interface with ASP, IDE, DDP as well as EU LRIT Monitoring Centre

- Support auditing, invoicing and billing and maintain journals

- Distribution LRIT information to EU MS via Web based interface also accessible via SSN (hyperlink)
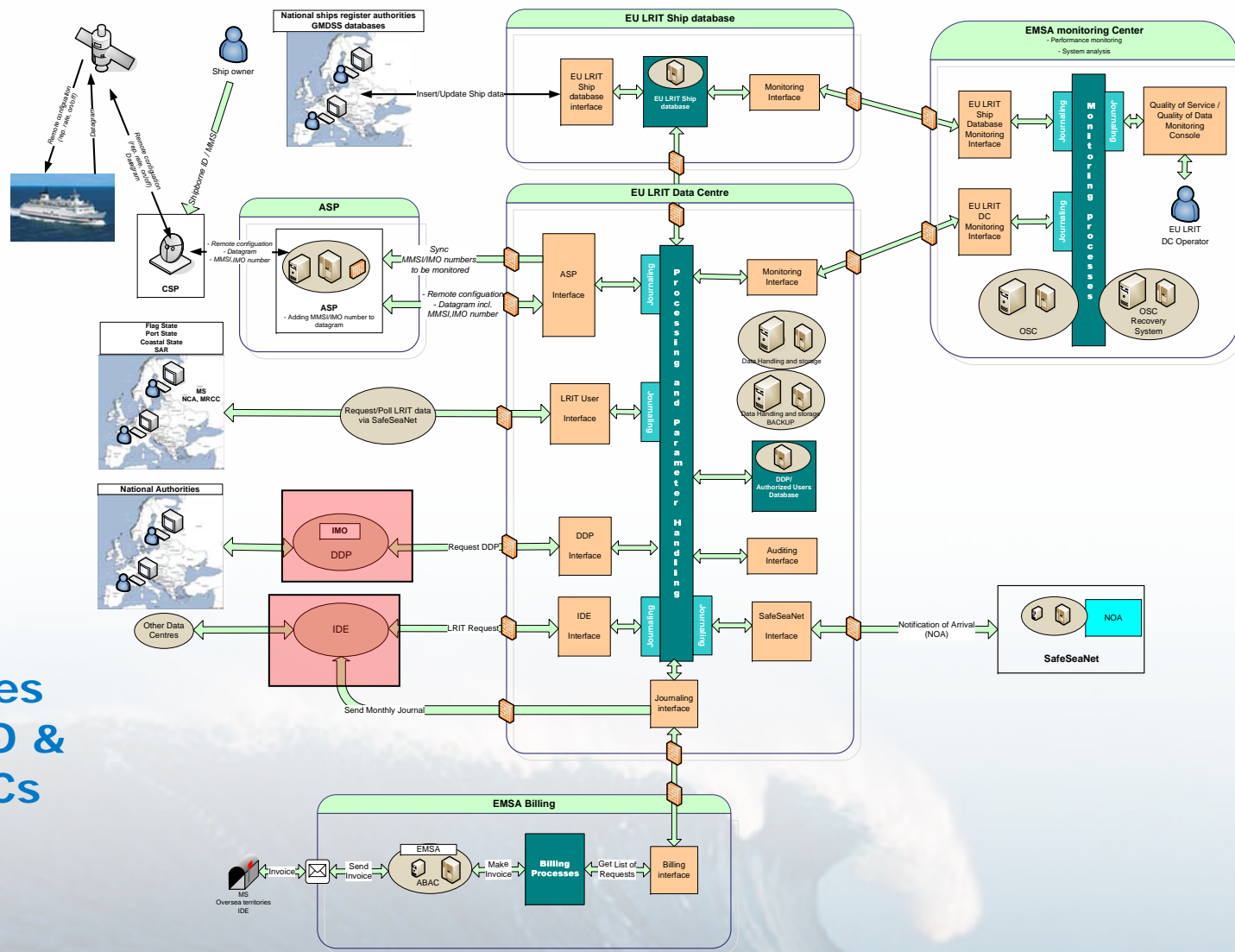
DC outsourced following public procurement

8

EMSA — European Maritime Safety Agency

EU LRIT Monitoring Centre

9

EU LRIT Monitoring Centre

EMSA monitoring Center
- Performance monitoring
- System analysis

EU LRIT Ship Database Monitoring Interface

Journaling

Monitoring processes

Journaling

Quality of Service / Quality of Data Monitoring Console

EU LRIT DC Monitoring Interface

Journaling

EU LRIT DC Operator
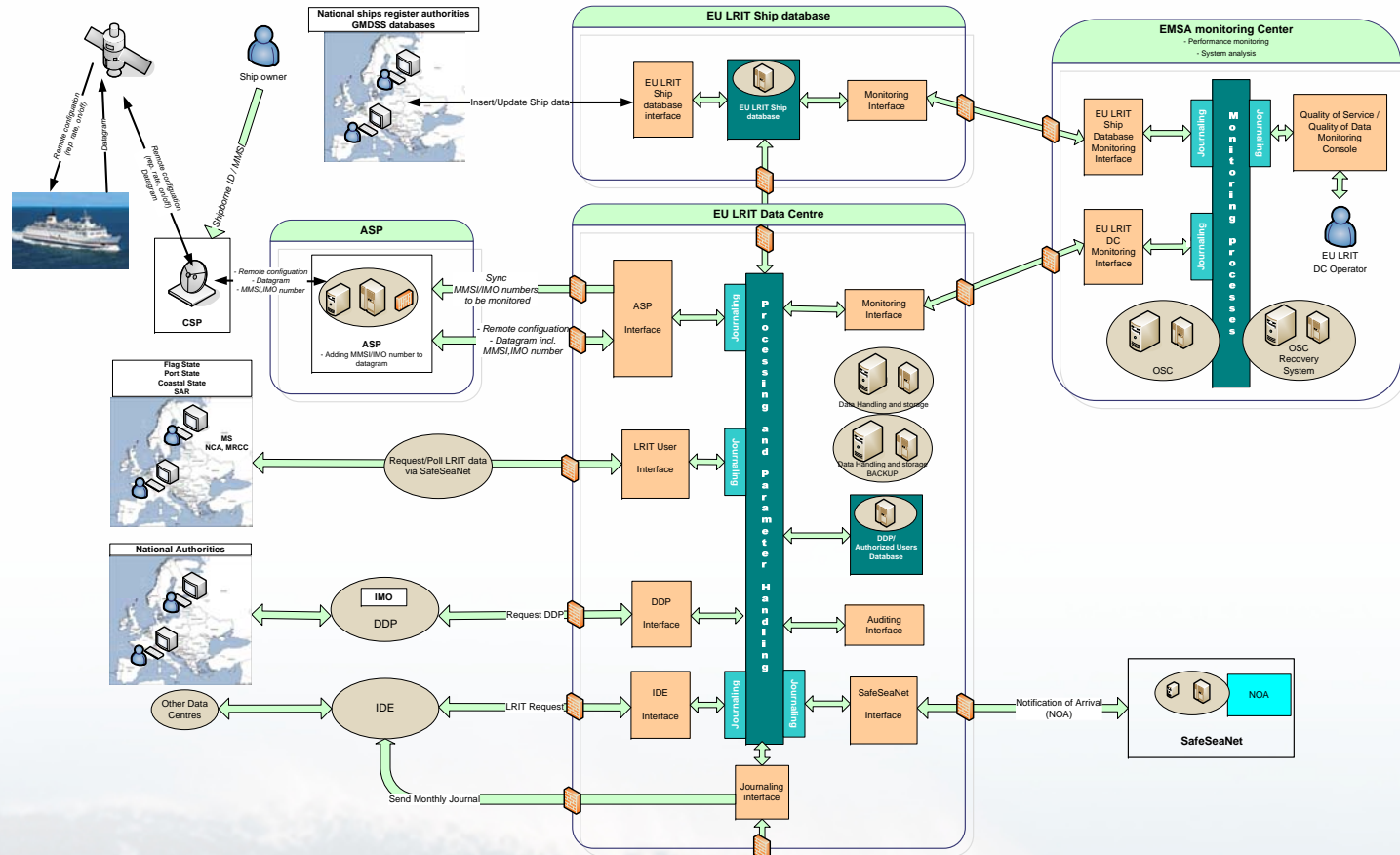
OSC

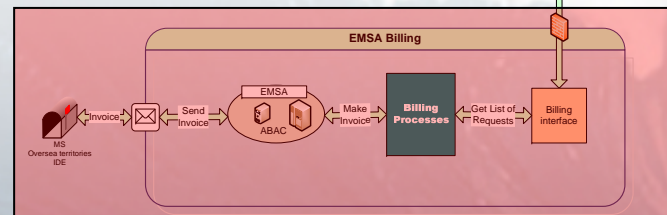**OSC Recovery System**

MC Interface to be tendered

- MC to monitor quality of service and data within EU LRIT DC & Ship DB:
  - System monitoring (HMI)
  - QoS >95% over 24h and 99% over 1 month
  - Reporting Ship Stop transmitting
  - Maintain operational contacts, etc...

- Will include 24 h/day operators to monitor system as required by IMO
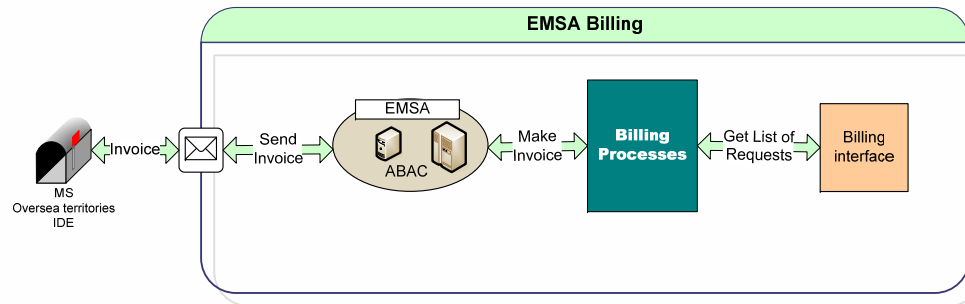
10

EMSA
European Maritime Safety Agency

Interfaces with IMO & IDE & DCs

Ship owner

National ships register authorities
GMDSS databases

EU LRIT Ship database

Insert/Update Ship data

EU LRIT Ship database interface

EU LRIT Ship database

Monitoring Interface

EMSA monitoring Center
- Performance monitoring
- System analysis

EU LRIT Ship Database Monitoring Interface

Monitoring processes

Quality of Service / Quality of Data Monitoring Console

EU LRIT DC Monitoring Interface

Monitoring processes

EU LRIT DC Operator

OSC

OSC Recovery System

Remote configuration (rep. rate on/off)
Datagram
Remote configuration (rep rate on/off)
Datagram
Shipborne ID / MMSI

- Remote configuration
- Datagram
- MMSI,IMO number

CSP

ASP

Sync MMSI/IMO numbers to be monitored

ASP Interface

- Remote configuation
- Datagram incl. MMSI,IMO number

ASP
- Adding MMSI/IMO number to datagram

EU LRIT Data Centre

Journaling

Processing and Parameter Handling

Monitoring Interface

Data Handling and storage

Data Handling and storage BACKUP

Flag State
Port State
Coastal State
SAR

MS
NCA, MRCC

Request/Poll LRIT data via SafeSeaNet

LRIT User Interface

Journaling

DDP/ Authorized Users Database

National Authorities

IMO

DDP

Request DDP

DDP Interface

Auditing Interface

Other Data Centres

IDE

LRIT Request

IDE Interface

Journaling

Journaling

SafeSeaNet Interface

Notification of Arrival (NOA)

NOA

SafeSeaNet

Send Monthly Journal

Journaling interface

EMSA Billing

Invoice

Send Invoice

EMSA
ABAC

Make Invoice

Billing Processes

Get List of Requests

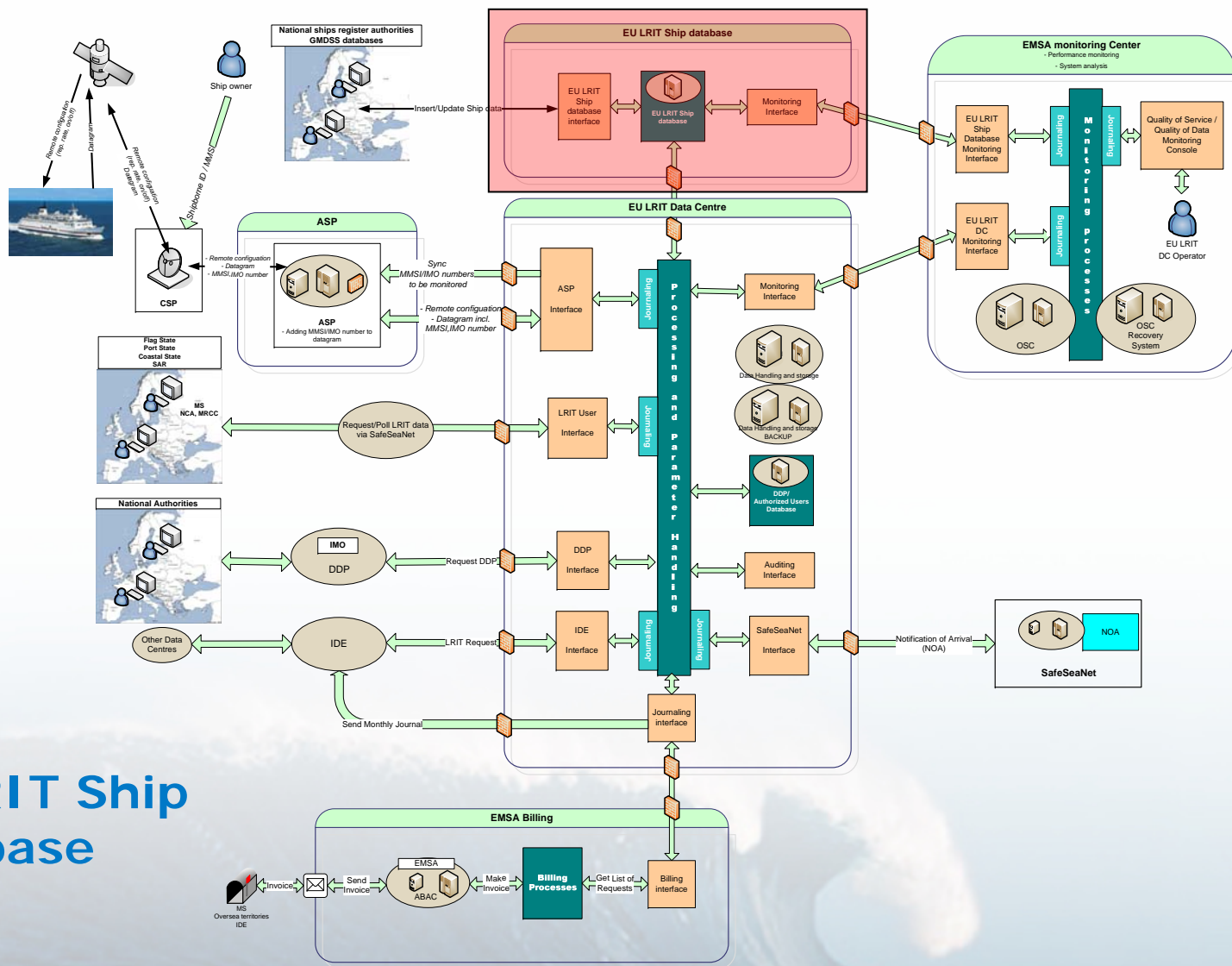Billing interface

MS
Oversea territories
IDE

EMSA Billing

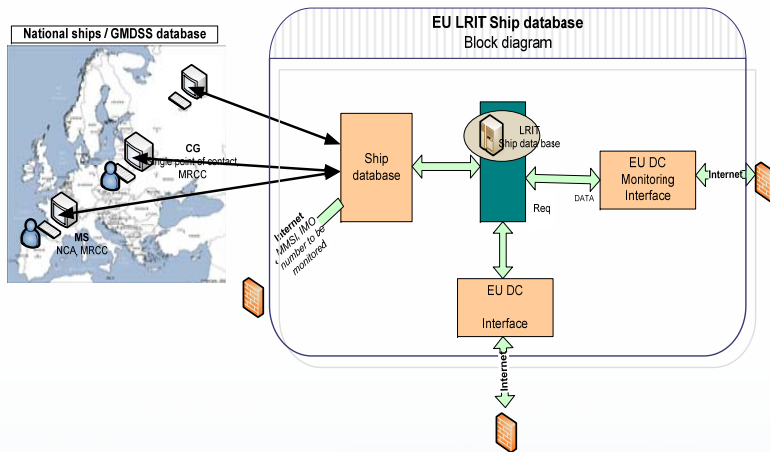# Invoicing & Billing System

- International cost modalities still to be refined, price list part of DDP, clearance needs to be discussed (message balancing)

- EU LRIT DC has to invoice more than 4 messages per day per ship for MS Flag States

- EU LRIT DC has to invoice Overseas Territories & Third states requesting LRIT messages

- MS will have to pay for LRIT messages received via IDE from other LRIT DCs (non EU flagged vessels)

- EU LRIT DC will receive income for messages of EU flagged vessels requested by other LRIT Data Centres

EU LRIT Ship Database

EU LRIT Ship Database Register

EU LRIT Ship database to be developed by EMSA within the framework of SafeSeaNet

- MS permanent access to populate the database via SSN Web interface (Single window)

- Regular update of the registration database from national GMDSS (IMO Res. A887 (21))

- Access Rights: Only MS/Flag States define ships instructed to report to EU DC

- EMSA provides updated list of ships to ASP/DC

15

Links to SafeSeaNet

Links between LRIT & SSN & STIRES

- EU LRIT DC accessible by EU MS using web based application via SSN

- MS populate Ship Database via SSN interface

- Use Notification of Arrival from SafeSeaNet (TBD)

- Planned distribution of LRIT report through STIRES/SSN

- Preparation for future integration of LRIT into SSN

17

Link between LRIT & SSN & STIRES

- **Thanks for your attention**

- **Question ??**