



SAR-RELATED AVAILABLE TECHNOLOGIES

SAFEMED IV Project – Training on main principles of
Search and Rescue online 24, 25 and 26 March 2021

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Unit 1.2: Regulatory Compliance

Sector: Visits & Inspections, Human Element

Lisbon / Online, 26 March 2021



- **09.00 – 09.30** **SAR-Related Available Technologies**
- **09.30 – 10.30** **Planning and Coordination**
- **10.30– 11.00** **Coffee Break**
- **11.00 – 12.00** **Case Study**
- **12.00 – 12.30** **Wrap-up and Conclusions**

(MAIN) TECHNOLOGIES AVAILABLE FOR SAR OPERATIONS

1. Introduction

2. GMDSS

3. AIS

4. LRIT

5. VTS

6. Wrap-Up

Let's reverse engineer this presentation!

Starting from the end, we can reach back and try to fill the eventual gaps!

(...and in this way it is even more interactive!)

Now, please pick up your mobile phone and go to:

www.menti.com

Insert code: **xxxx xxxx**

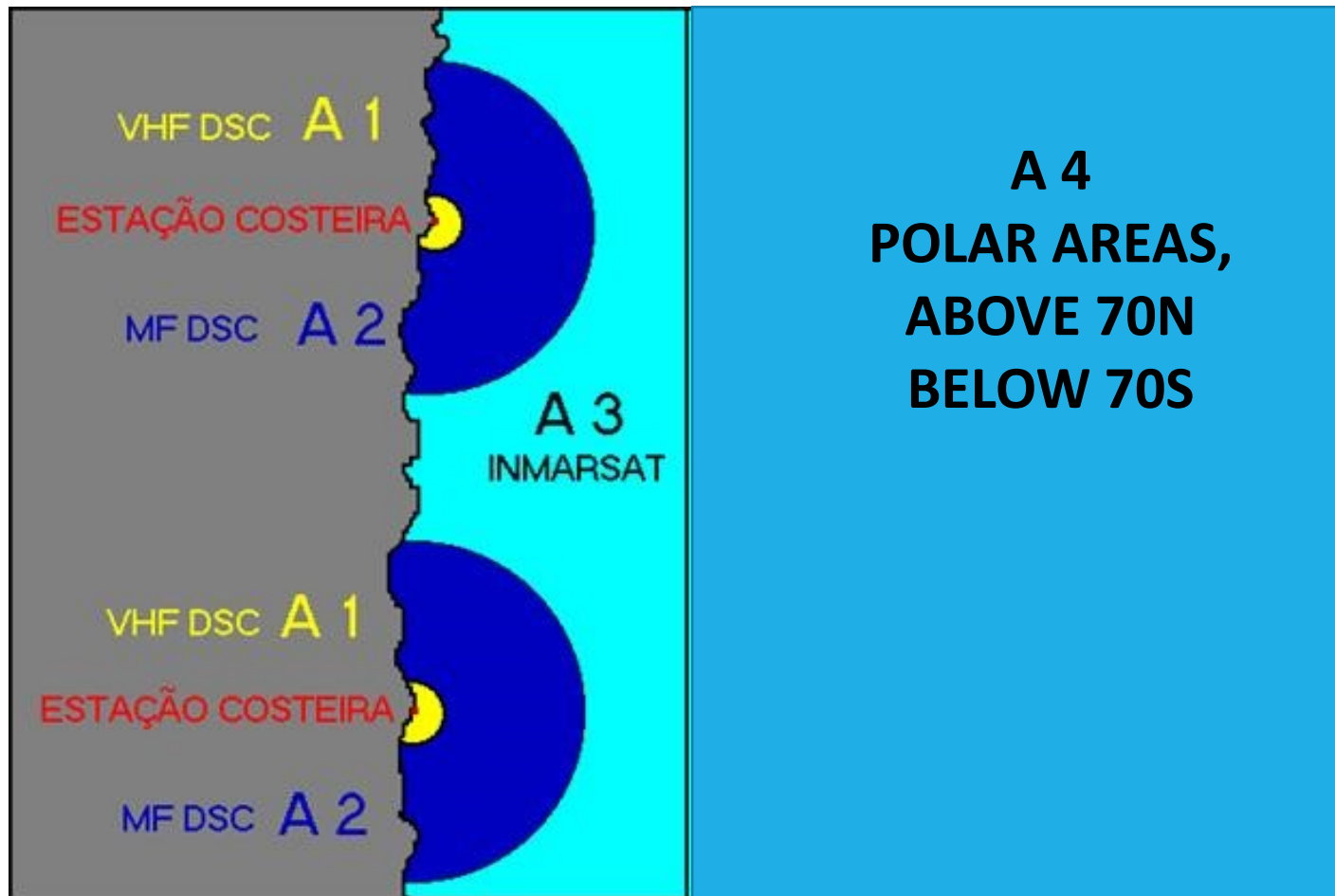
GMDSS

Global Maritime Distress and Safety System

- SOLAS 1988, Chapter IV.
- WHY? FROM SAR TO ~~“SAR”~~!
- Started on 1st February 1999.
- 3 Layers: Tech, OP, ADMIN.

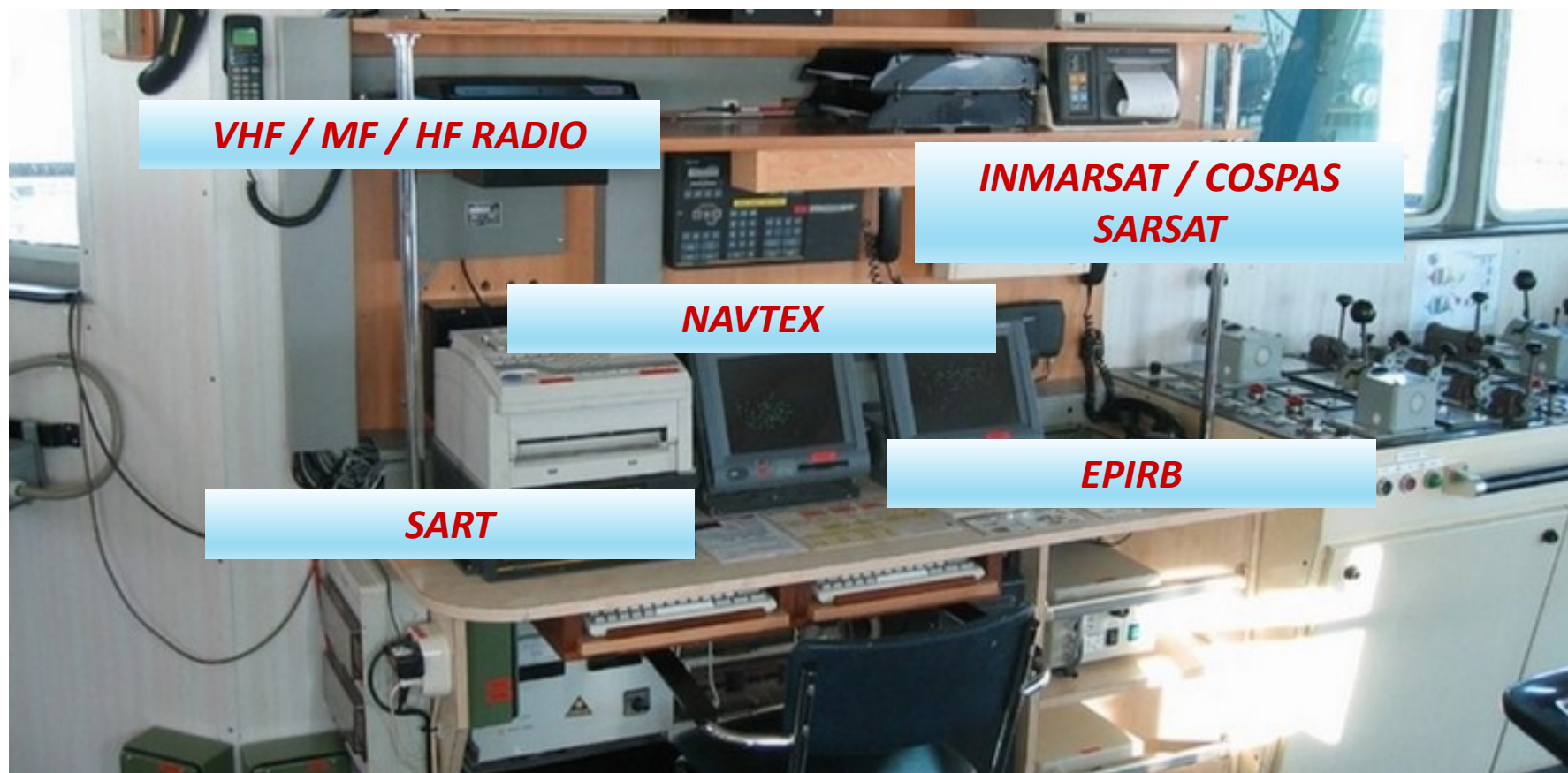


GMDSS Areas



IDEA: CONSTANT LINK FOR SAFETY RELATED COMMUNICATIONS

IT IS NOT AN APPARATUS, IT IS A SYSTEM!



IF HUMAN ELEMENT IS AN ISSUE, LET'S MOVE FORWARD: MAXIMUM AUTOMATION FOR PROCEDURE AND DATUM



AUTOMATIC IDENTIFICATION SYSTEM

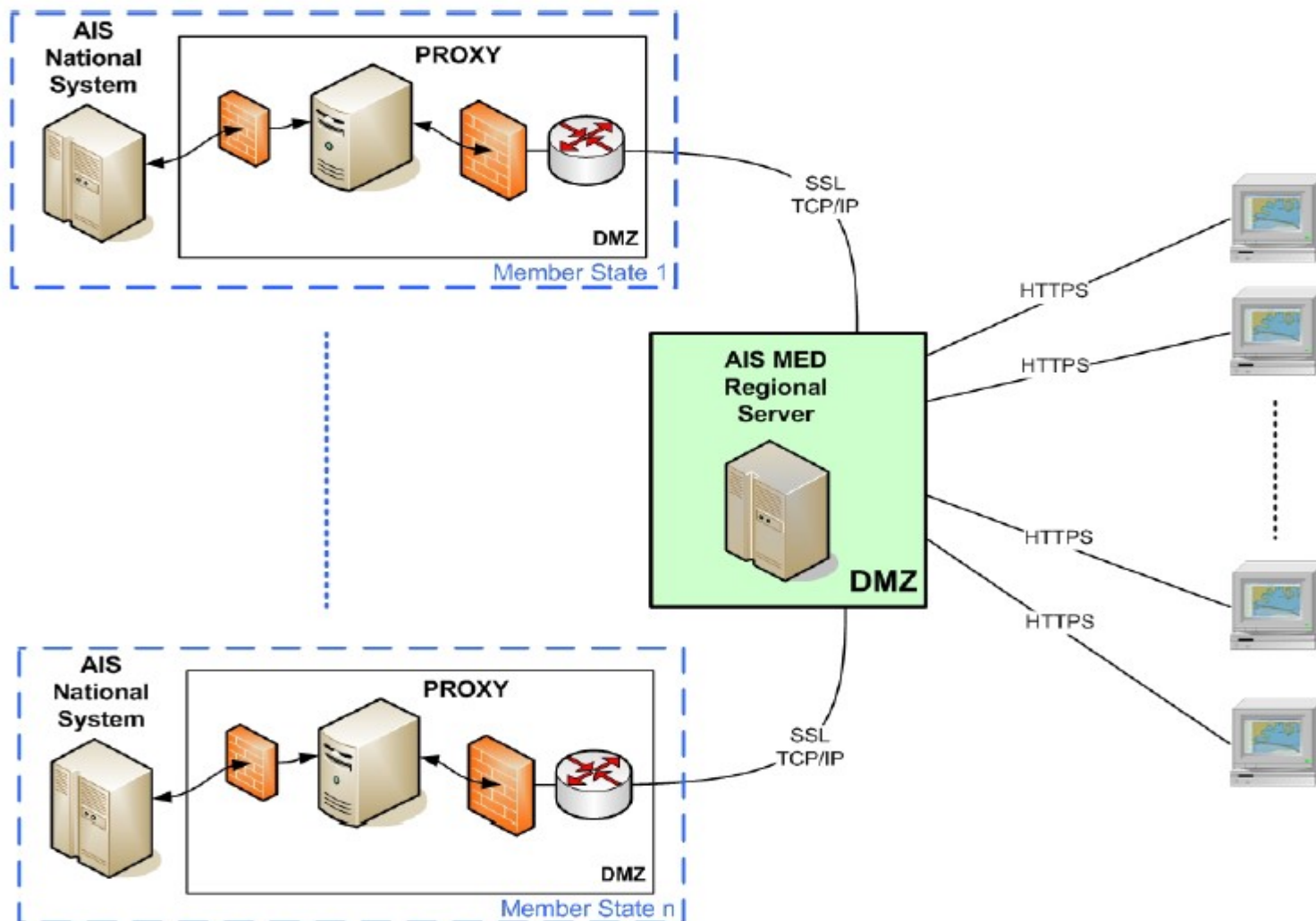
SOLAS CHAPTER V (...NOT IV!)

VHF RADIO DATA

**CONNECTED WITH NAVIGATIONAL
EQUIPMENT**

**TRANSMITS CONSTANTLY DATA READABLE
BY OTHER AIS SYSTEMS IN REAL TIME**

HOW IT WORKS



HOW IT WORKS/2

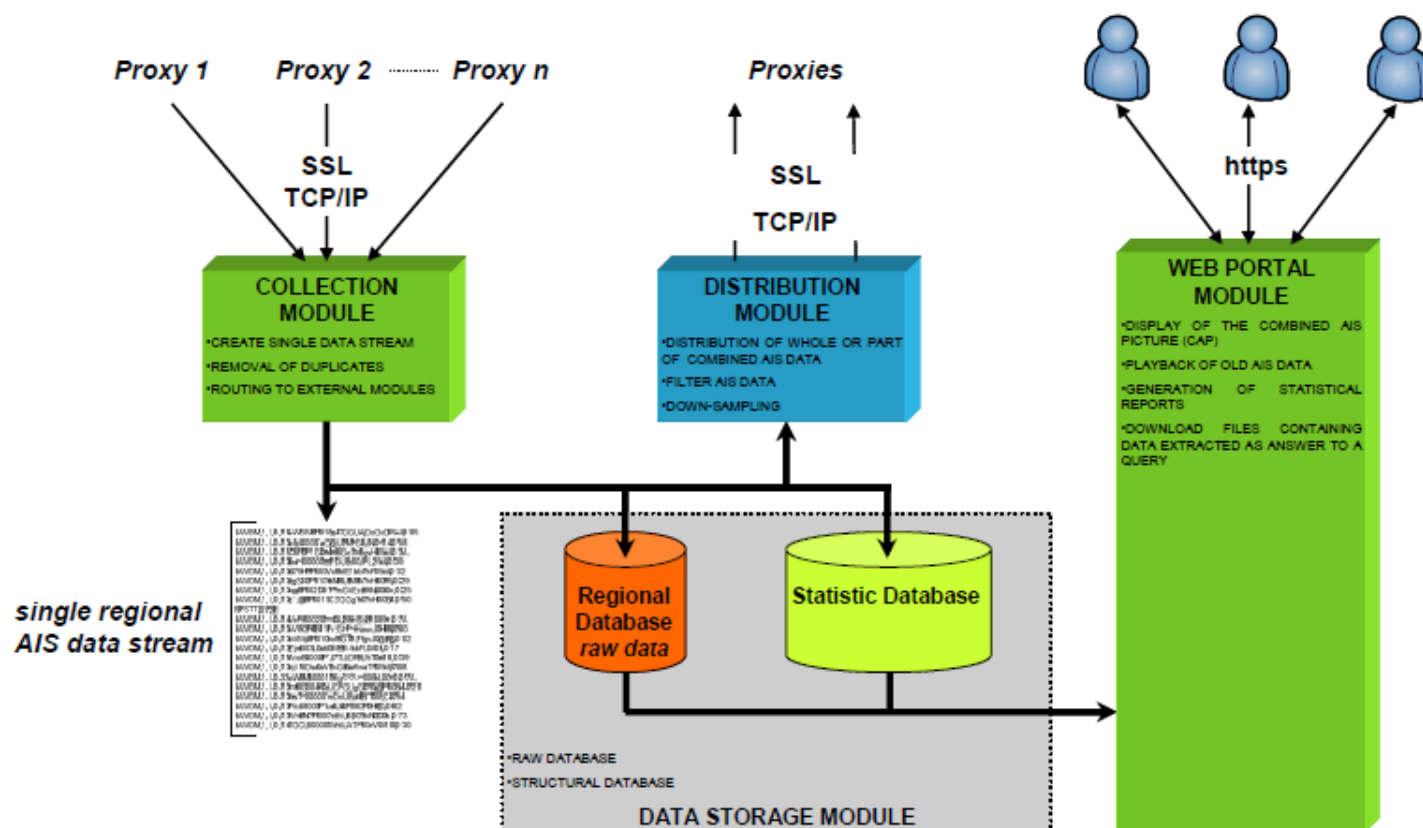


Figure 4-4: MED Regional server block diagram

RESULT: A COMPLEX BUT CLEAR PICTURE



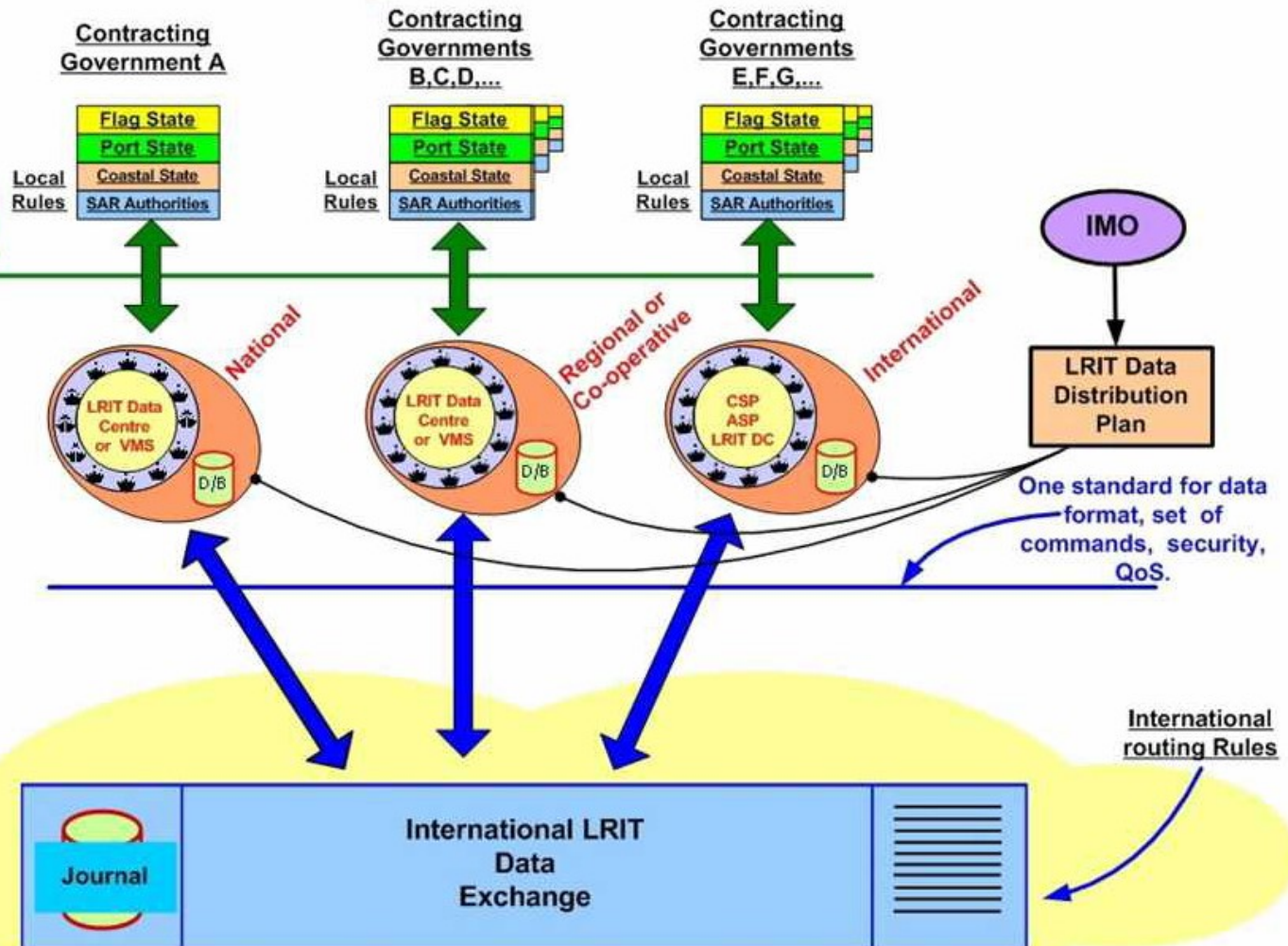
LONG RANGE IDENTIFICATION and TRACKING SOLAS Chapter V

Not a native safety system

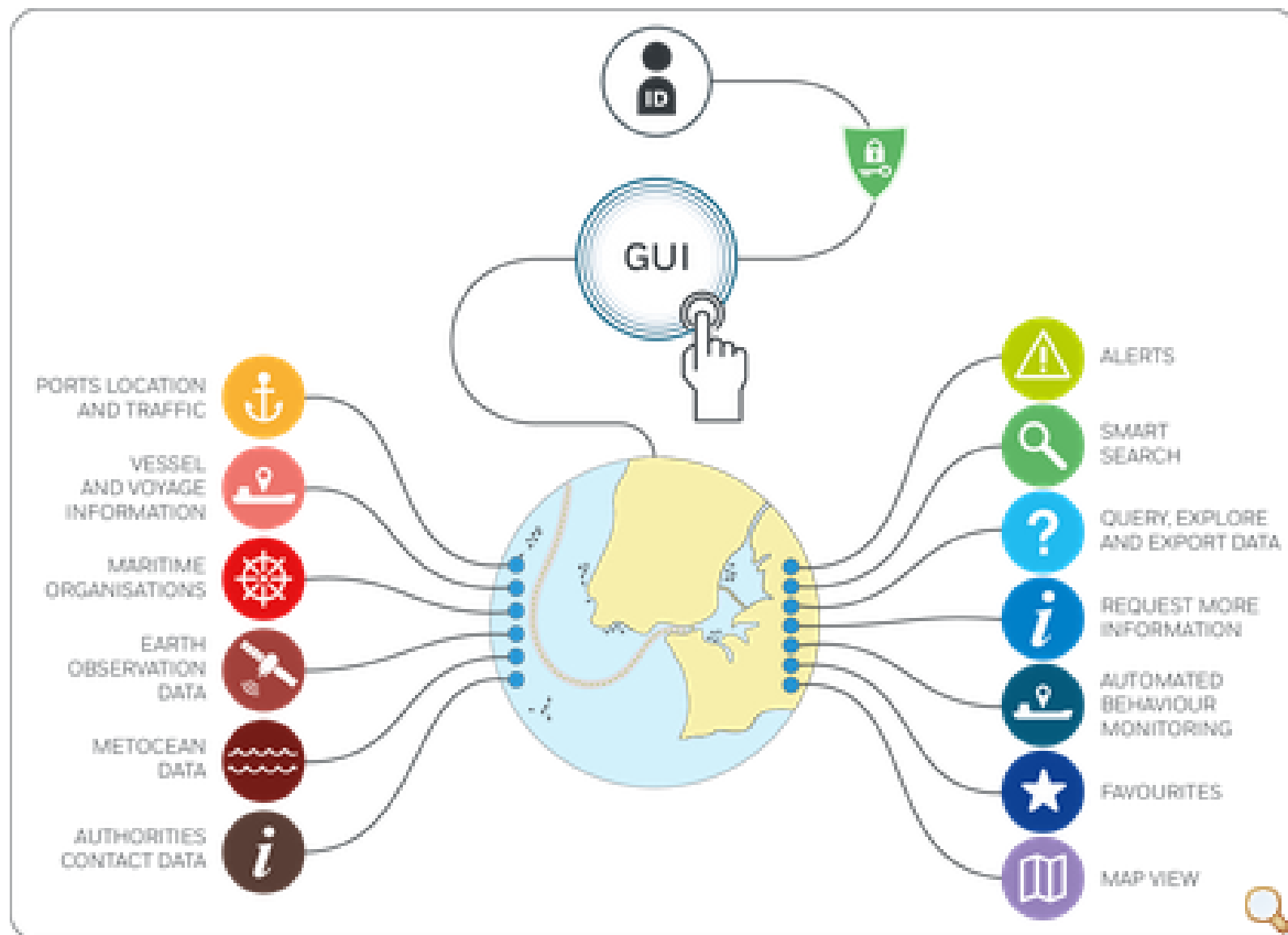
LRIT International Data Exchange

LRIT System Architecture

The standard for data format, set of possible commands, security and user interface may vary from place to place.



4 – LRIT as part of SSN



VESSEL TRAFFIC SERVICE

- SOLAS CH V R 12
- VTS IS (AGAIN) NOT AN EMERGENCY SYSTEM
- MONITORS TRAFFIC
- DIFFERENT DEGREES
- INTERACTIVE SYSTEM



SAR IN MODERN TIMES



Thank you for your time!



...and just in case of any question rising later:

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