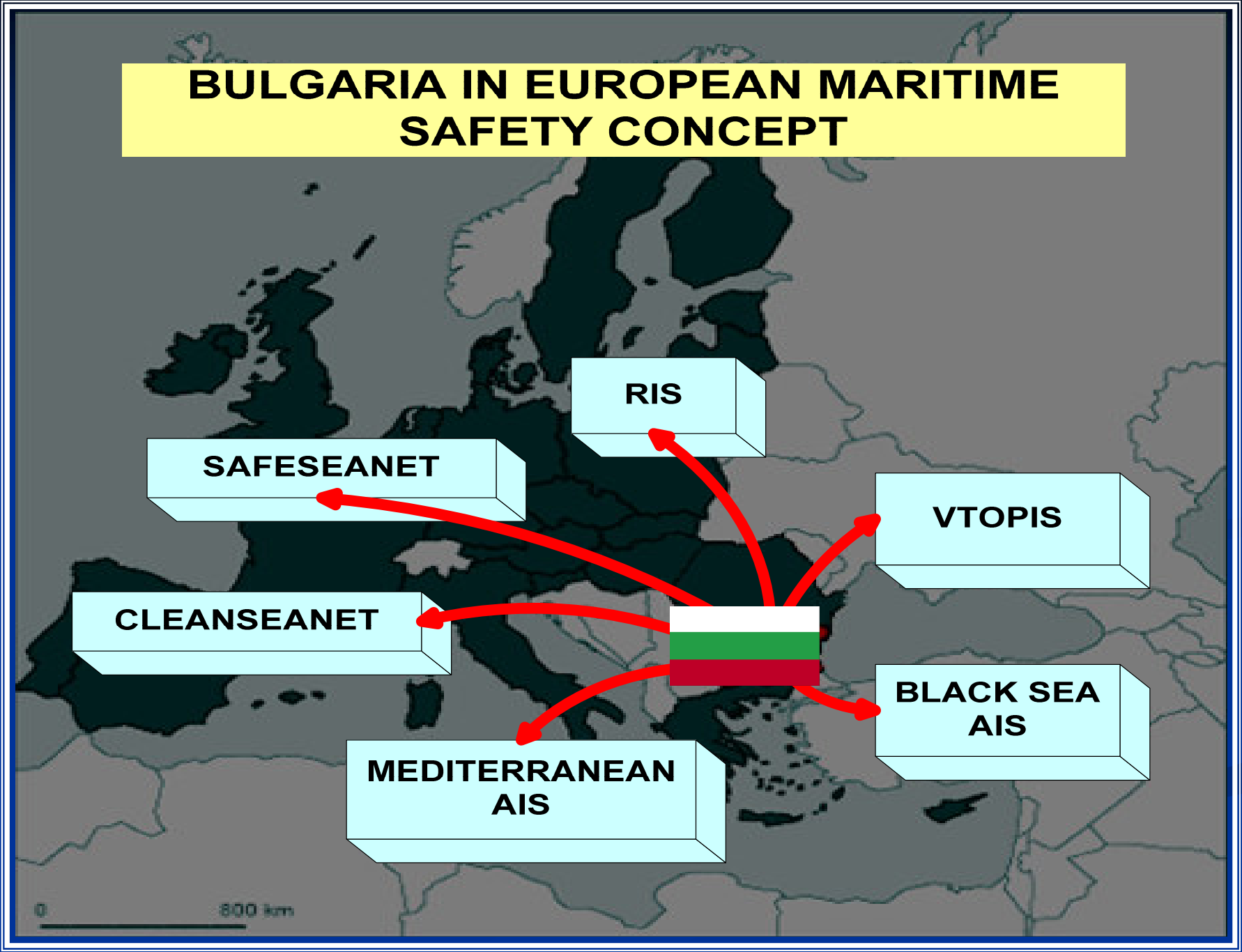
MINISTRY OF TRANSPORT

BULGARIAN MARITIME ADMINISTRTION

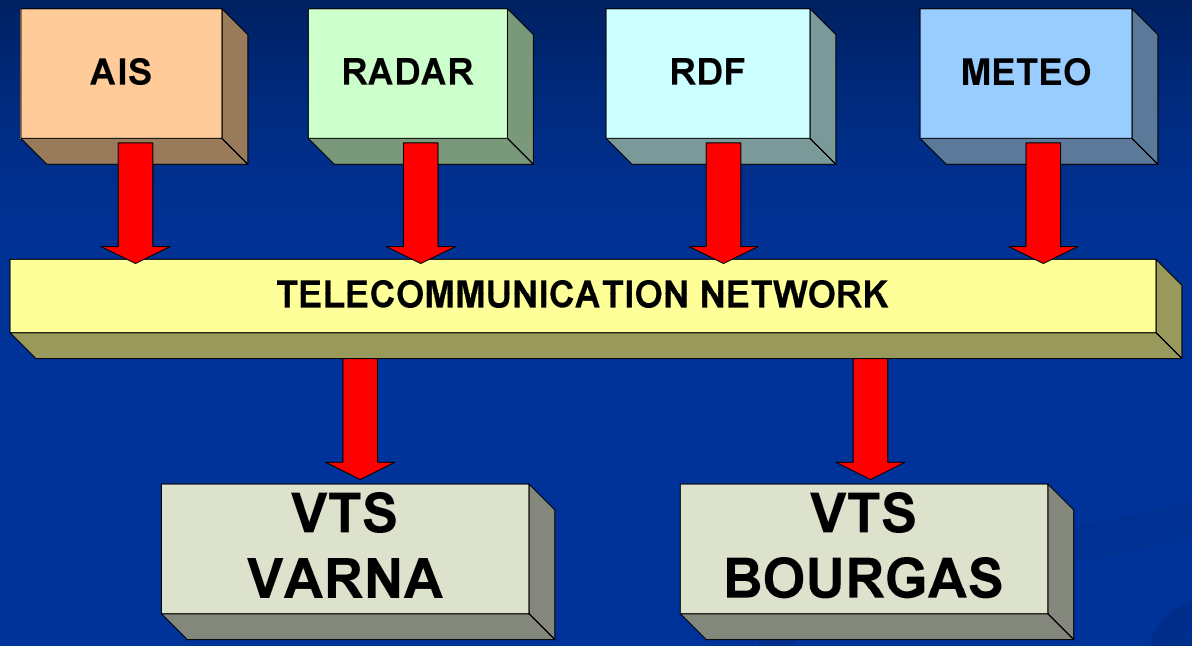
Bulgarian participation in Mediterranean AIS network and proposal for implementation of Black Sea AIS network

Odessa 24-26 June 2008

BULGARIA IN EUROPEAN MARITIME SAFETY CONCEPT



Bulgarian VTMIS subsystems

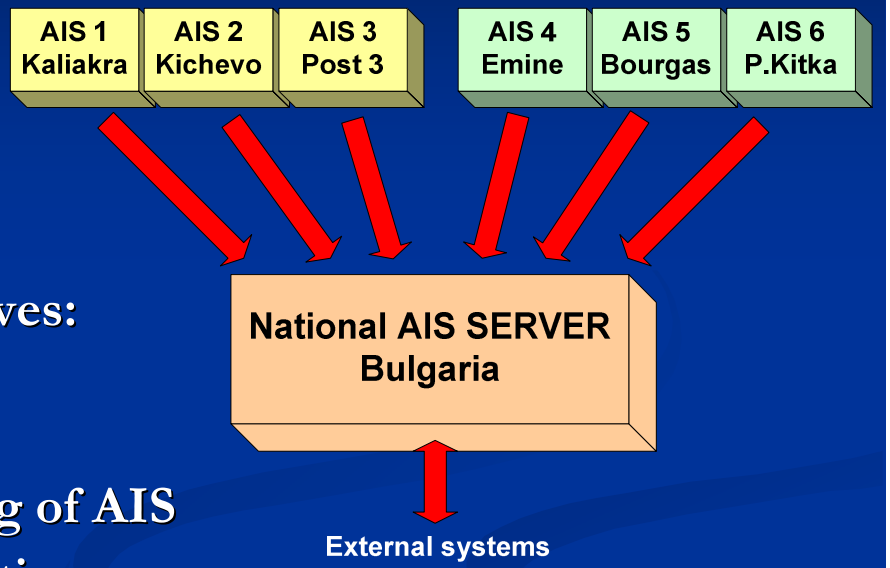


VTMIS includes the following subsystems:
AIS (Automated Identification System) – 6 base stations
RADAR (Radar surveillance) – 9 Radars
RDF (Radio Direction Finder) – 6 stations
METEO (Meteorological sensors) – 2 stations (Varna and Bourgas)

All sensors are connected to the VTS centers Varna and Bourgas via the microwave telecommunication network

Main objectives

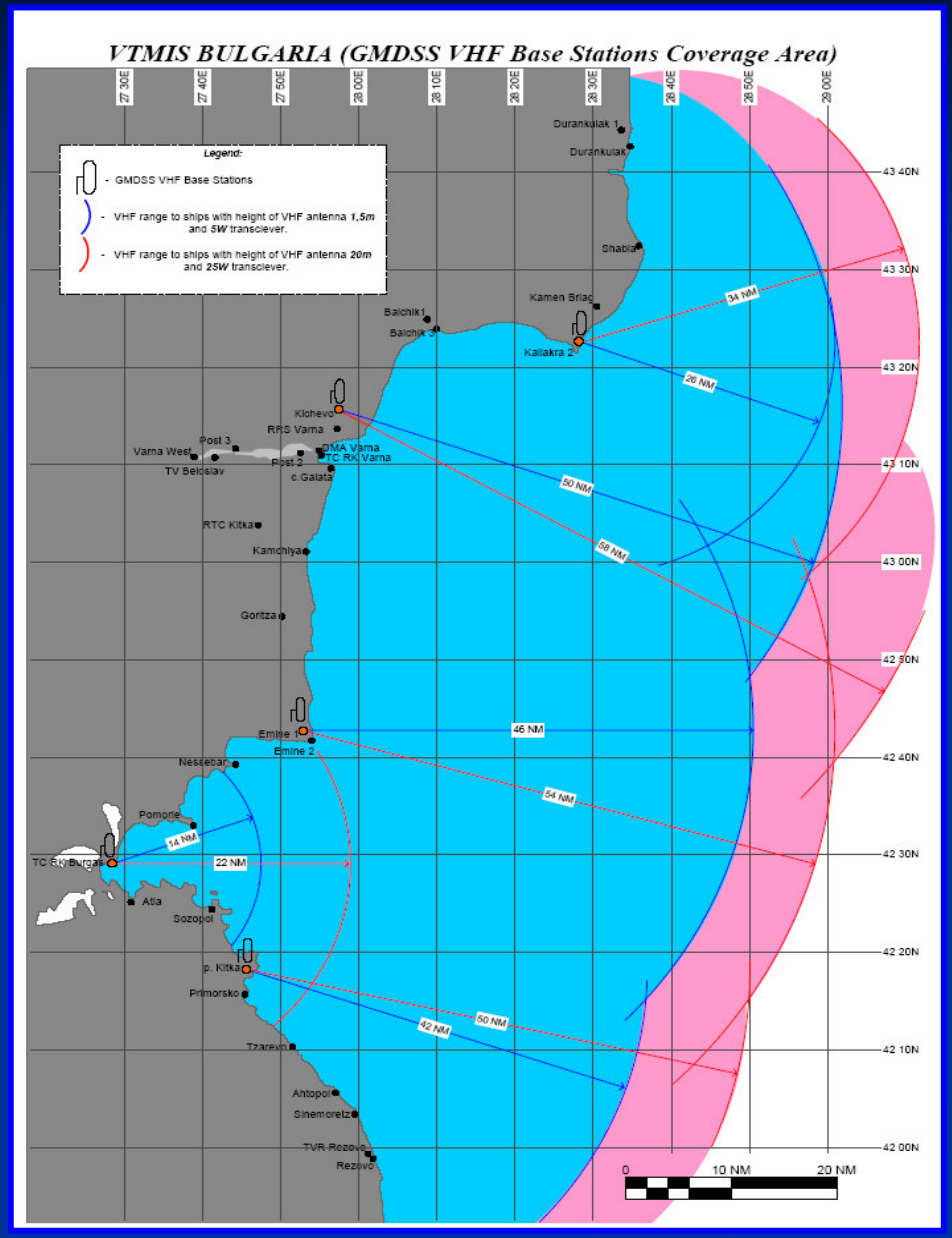
The development and implementation of Bulgarian National AIS server was completed in November, 2007.



The system has the following main objectives:

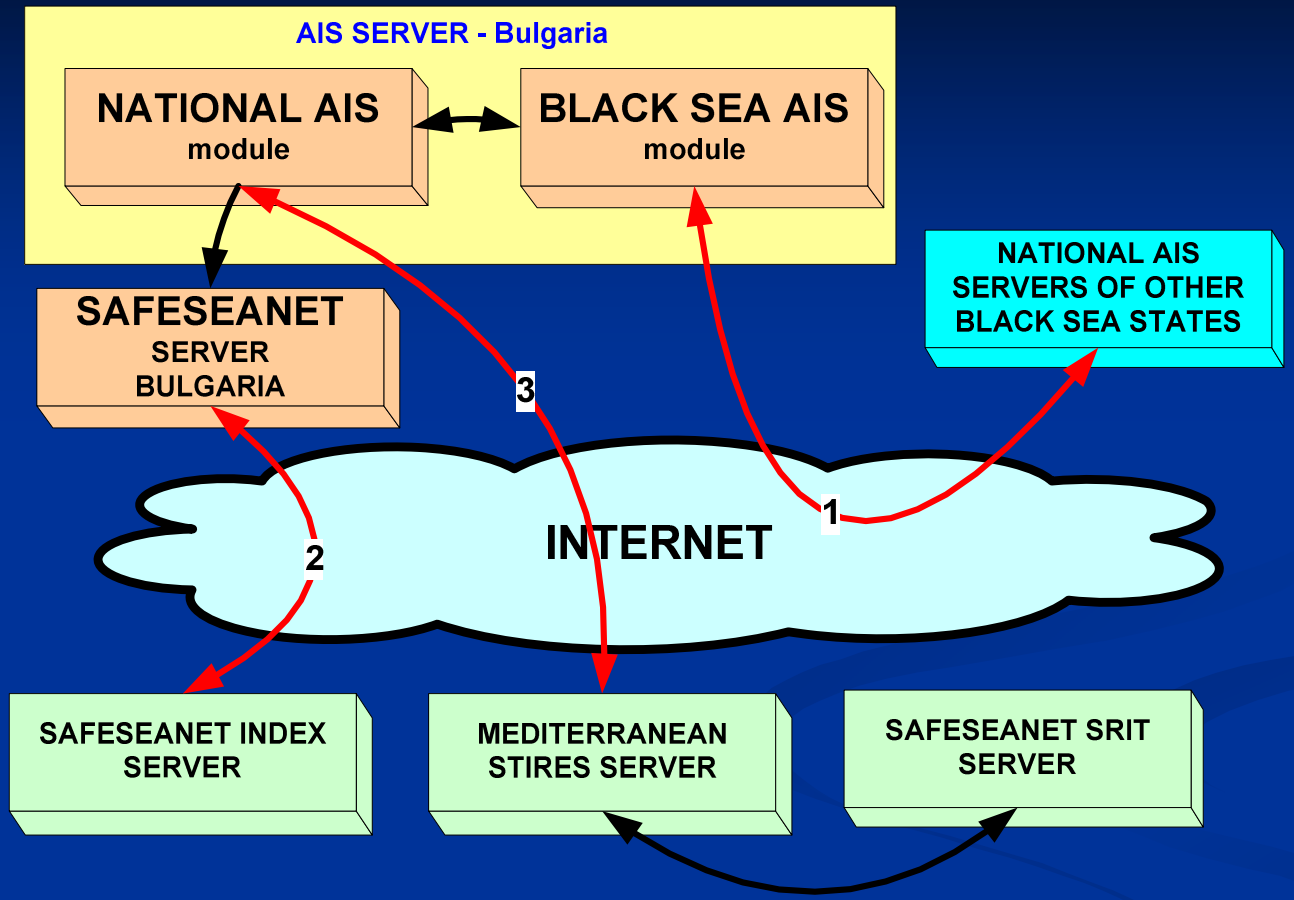
- Centralization, processing and archiving of AIS information acquired from AIS base stations
- Exchange of AIS data with EU SRIT/STIRES system
- Exchange of AIS data with Mediterranean AIS system
- Future exchange of AIS data with other Black Sea countries

Bulgarian AIS network – coverage area



- Bulgarian AIS network consists of **six AIS base stations**.
- The system provides **full coverage of the coast** since October 2004.
- All AIS base stations are connected to the VTS servers via **MCL telecommunication network**

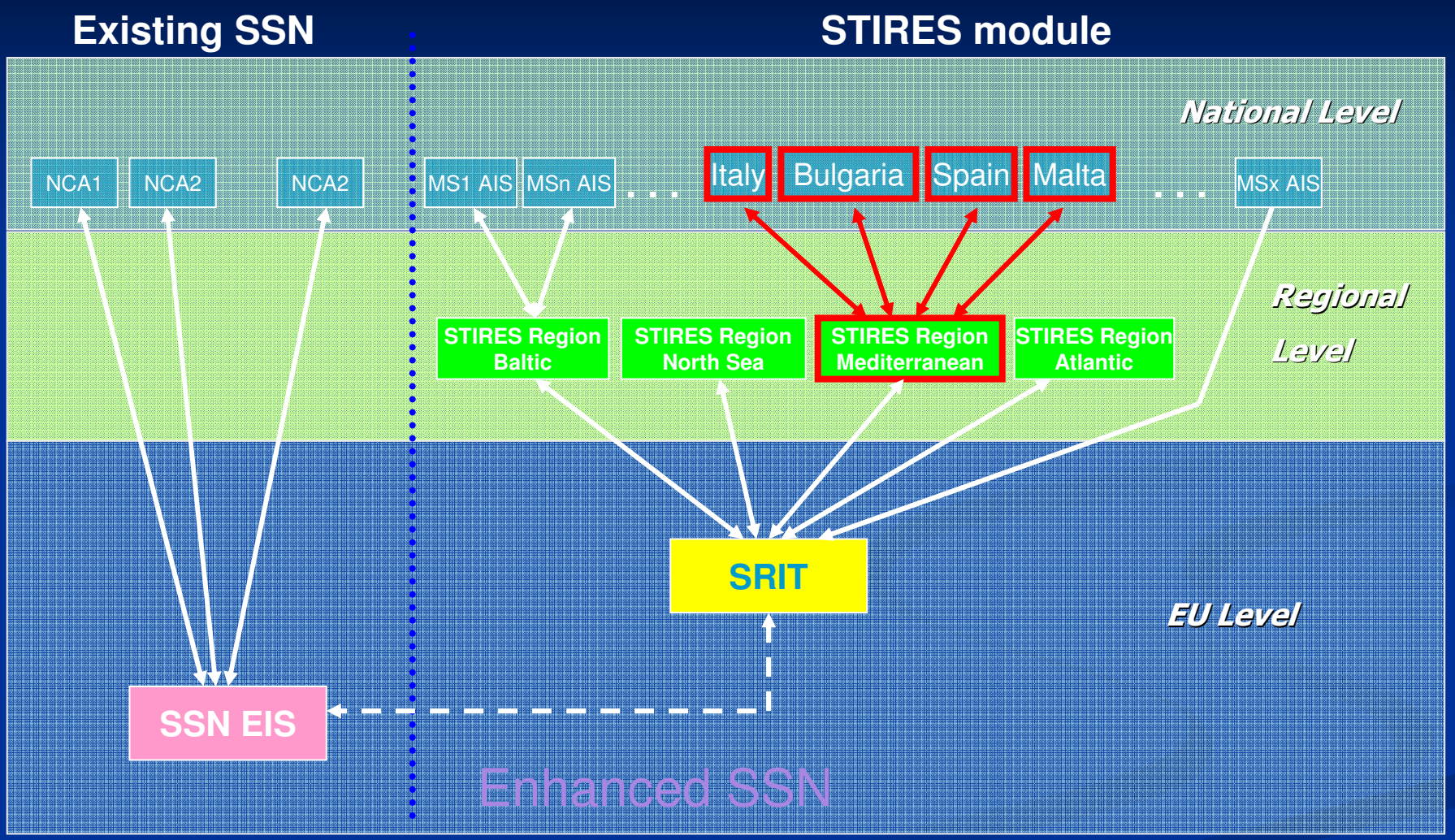
Data exchange concept diagram



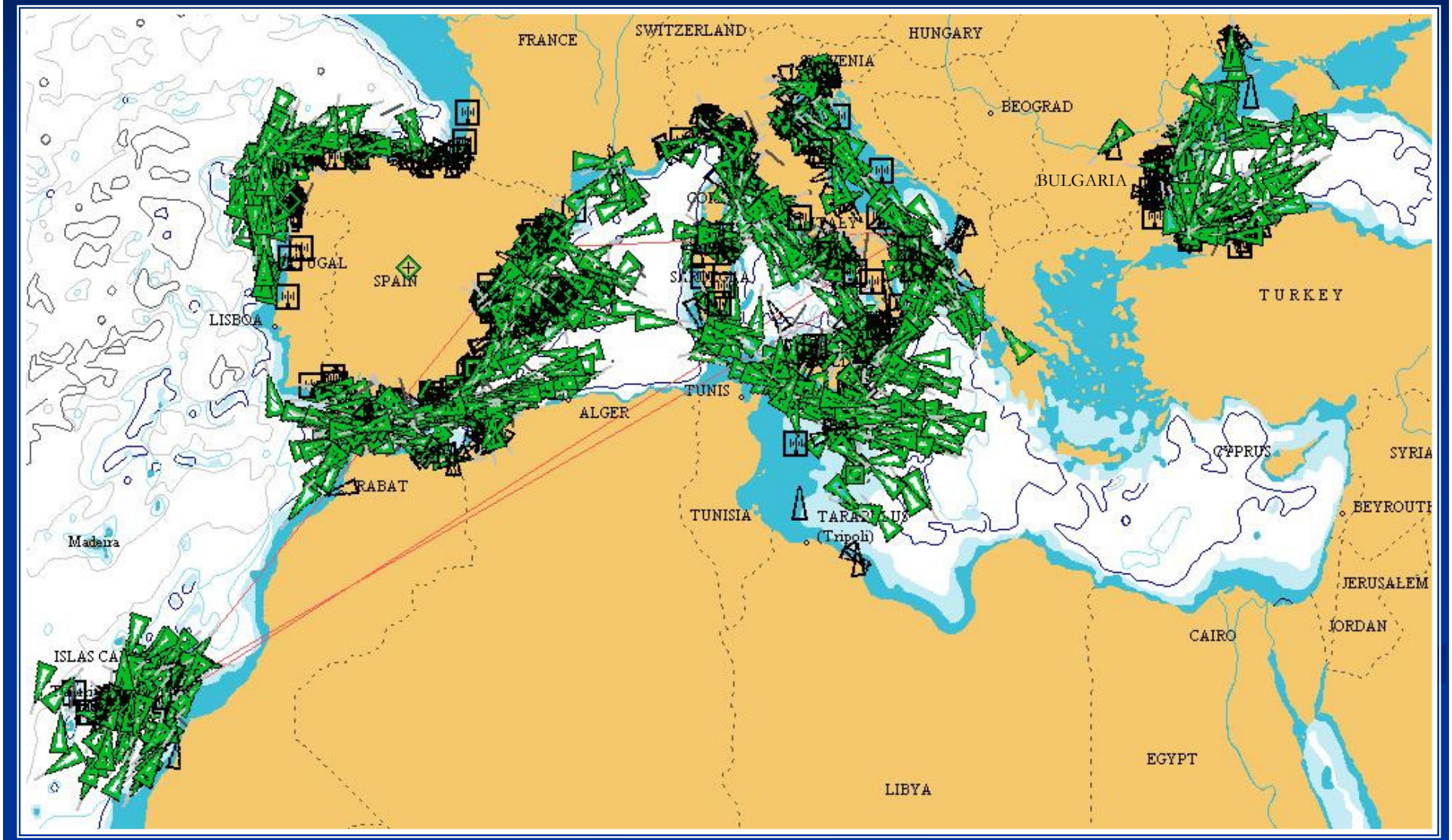
1. Exchange of AIS data between Bulgaria and **other Black sea countries**
2. Generation of **ship notifications to SafeSeaNet**
3. Exchange of AIS data with the **Mediterranean STIRES server**

Mediterranean AIS network

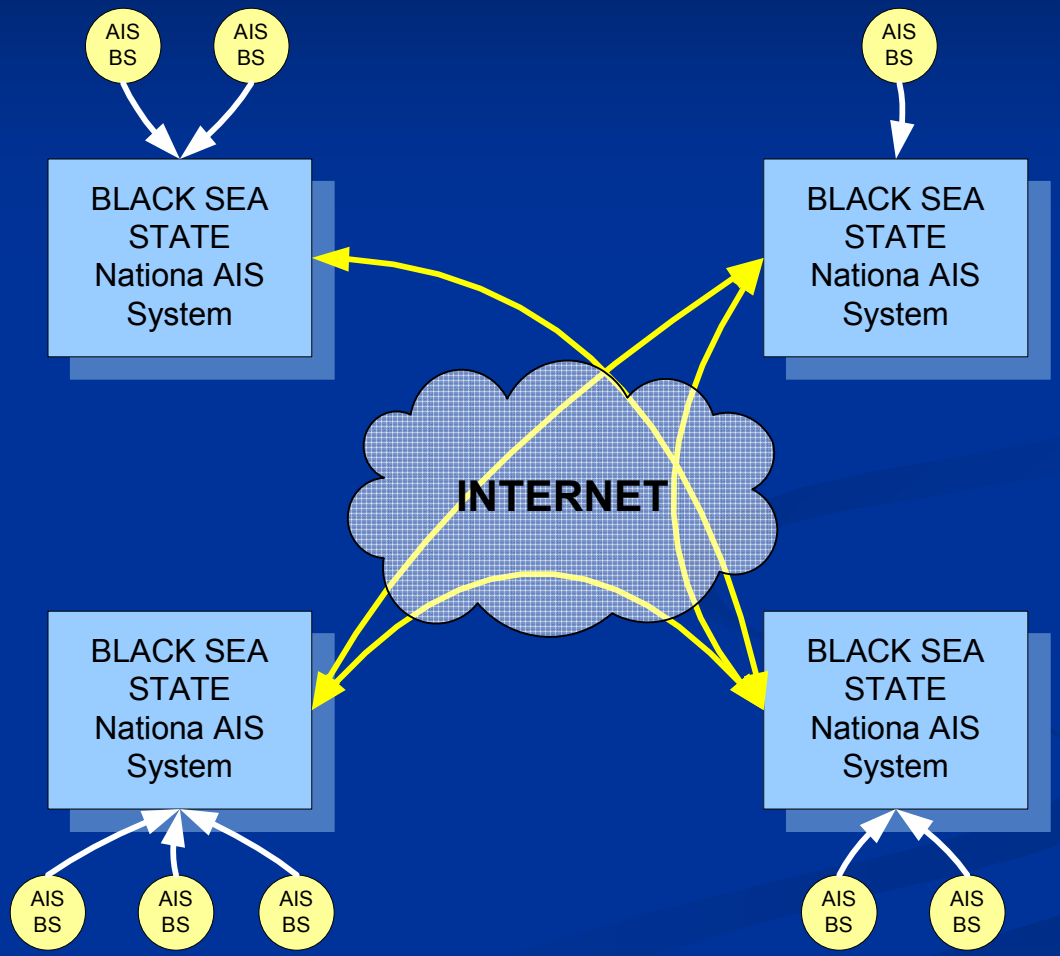
- With the help of the National AIS server Bulgaria is currently exchanging AIS data with the Mediterranean AIS server which is part of the STIRES concept.
- STIRES is the common European Union "Short Range Identification and Tracking" approach to the requirements of Directive 2002/59/EC;
- STIRES AIS data from EU member states will be integrated with SafeSeaNet giving exciting new monitoring possibilities;
- Italy, Bulgaria, Spain and Malta are participating in the test exchange of AIS data within the Mediterranean STIRES module.


Existing SSN
STIRES module
National Level
NCA1
NCA2
NCA2
MS1 AIS
MSn AIS
. . .
Italy
Bulgaria
Spain
Malta
. . .
MSx AIS
Regional Level
STIRES Region Baltic
STIRES Region North Sea
STIRES Region Mediterranean
STIRES Region Atlantic
SRIT
EU Level
SSN EIS
Enhanced SSN

Med AIS network



Bulgarian proposal for AIS data exchange based on bilateral agreements



Benefits from the exchange of AIS data between Black Sea countries

- Increased safety of navigation;
- Increased efficiency of joint SAR and anti-pollution activities;
- Improved organization of the ships' traffic related to the additional information received by VTS centers; and
- Improved statistics of the marine transport in the Black Sea.

AIS data exchange principles

- Voluntary participation;
- Decentralized structure – the exchange is based on bilateral agreements and peer-to-peer communication; and
- Filtering of sensitive information.

The communication between national systems is provided via Internet using encrypted VPN connections. Data format will be according to AIS specifications (IEC 61993-2, IEC 61162-1).

Thank you for your attention!