Industry Day

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Bruxelles-Brussel
September 23, 2015

ITS group

ITS GROUP

ITS LAB

ict

1995

Highlights

Less then 250 Employees

8 Offices in Italy

sirm

2006

Research Consortia

CoRiTeL

ALI

CRIAI

ITS group

Società Italiana Radio Marittima is an Italian company founded by Guglielmo Marconi in 1927, performing the **management of radio-communication equipment** installed on board of Italian flagged vessels, according to IMO Safety Of Life At Sea (SOLAS) recommendations.

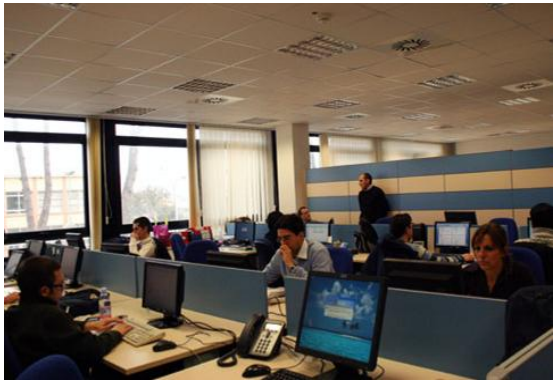
SIRM is an **LRIT Authorized Tester – Application Service Provider (AT-ASP)**, approved by MISE and it is in the board of directors of **C.I.R.M. - Comité Internationàl Radio Maritime** (member of IMO)

Thanks to a close cooperation with ITSLAB, SIRM provides a suite of **integrated ICT-based solutions** for the improvement of fleet management, including multi-channel communication and navigation efficiency

ITS group

ITSLAB srl is an Italian company providing Information and Communication Technology solutions, **SW Engineering and System Integration** to different Business Areas, such as: Telecommunication, Energy, Industry, **Space & Maritime**.

HQ is located in the South of Italy, where ~200 employees are involved in project and delivery activities working in a close and strong cooperation with R&D people.



Competence Centers

Competence Center	Technologies /Products
Mobile Enterprise	iOS, Android, Windows Mobile, Phone Gap, Appcelerator, MobileIron, ..
Unified Communication	Avaya, Asterisk, Loquendo, RealSpeak, ..
Portals, BPM, Social Intranet	Liferay, Weblogic, Sharepoint, JBOSS, Oracle Portal, WebCenter, Drupal, Joomla, Oracle SOA Suite, Tibco, ..
Open Source Technologies	MySQL, OpenGIS, OpenStreetMap, Xibo, Nuxeo, Nagios, OpenStack, OpenStack Storage, PostGre, OpenCV, Play, Zookeeper, Zoneminder, WS…
e-Learning	Saba, Moodle
BI, DWH, Big Data & Data Virtualization	Delphix, SAP BO, SAS, Oracle BI, Pentaho, Hadoop (Ambari, Hive), …
Satellite TLC Media Streaming and Broadcasting	Prostream, Osprey, Niagara, Amino, Wowza, Red5, VLC, ..

Focus on «Open Source»

Location Based Services

OpenGIS

OpenStreetMap

GeoServer

Business Intelligence

talend

Portal/ Social Portal

LIFERAY

LIFERAY social office

Collaboration/ Communication

dimdim

Asterisk

zimbra

OpenMeetings

Digital Signage

Xibo

LMS/ LCMS

ILIAS

moodle

Reporting

pentaho

JasperReports

Infrastructure Monitoring

Nagios

CRM

SUGARCRM

ERP

openbravo

CMS/ KMS/ DMS

Alfresco

Drupal

Joomla!

Vertical Application Components

SW Base Components

DBMS

MySQL

PostgreSQL

PostGIS Spatial PostgreSQL

Application Environment

JBoss

Apache Tomcat

Cloud infrastructure

OpenNebula

openstack CLOUD SOFTWARE

SOA Middleware

WSO2

Identity and Access Management

OpenID

Shibboleth

OpenSSO Open Access . Open Federation

OS

ANDROID

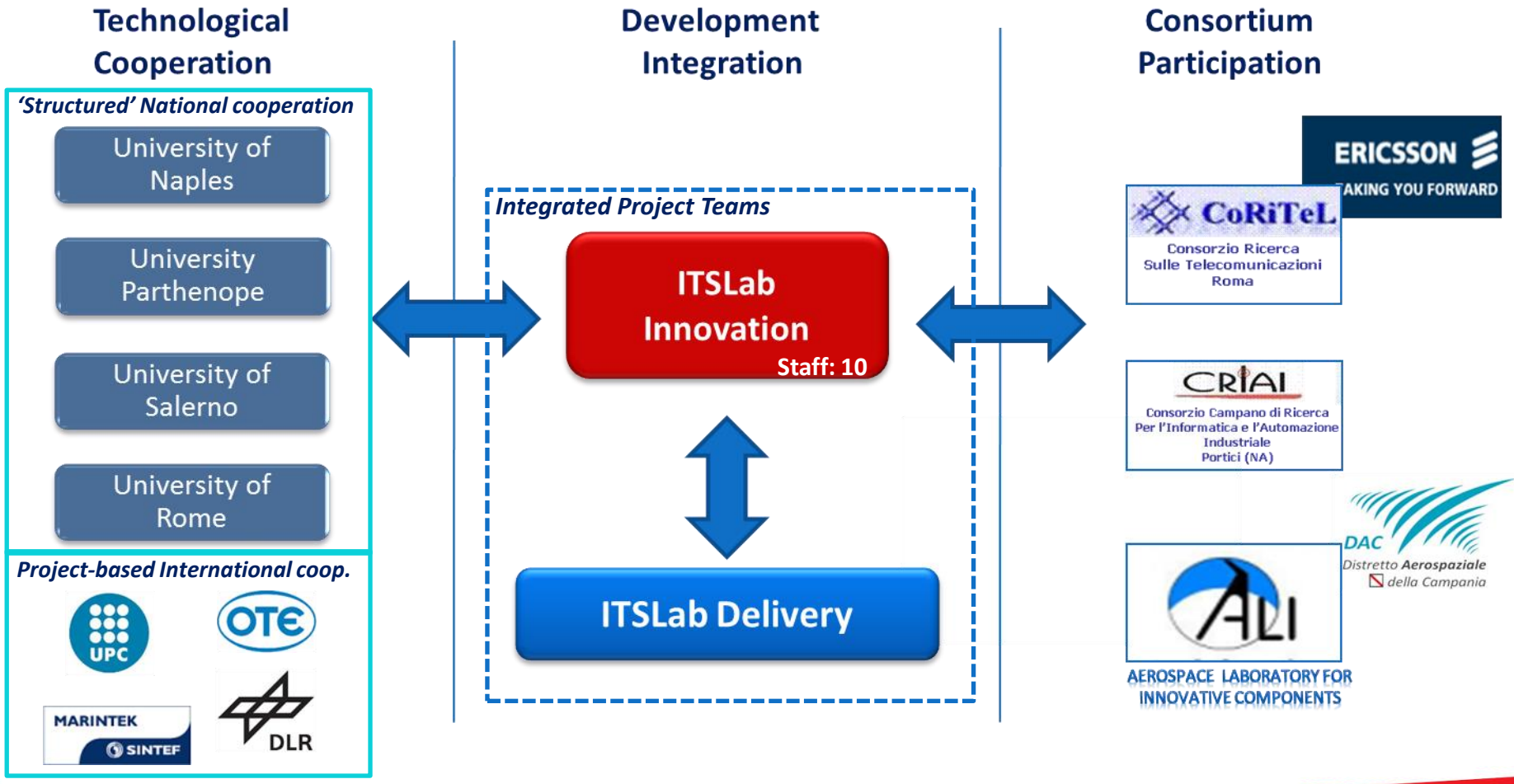
Mobile Dev Framework

PhoneGap

PhoneGap Build

CORDOVA

ITSLab Innovation structure



Main Customers

ITSLab in ESA Artes Framework Programme

esa

Projects

TOP

SAT4NET

SatCom4Mar

Sat-AIS Testbed

JANUS

Sensible

European Space Agency
ESA ARTES 20 EASY
Easy and Safe Yachting

ITSLab in ESA Artes20: service building blocks

CONTROL ROOM

BOOKING

METEO

TOURISM

tripadvisor

Booking.com

Expedia

'Open' INSTITUTIONAL Services

Service Center*
(Maritime Market Place)

Content Providers

Tourism
LBS
Navigation support
Remote control
Maintenance support

App Store

Service Providers

On Board User Terminal

*SOA-based Service Centre:
- Web-services Discovery
- " Orchestration
- Service Registry
- User Profiling & Authentication
- Community Management

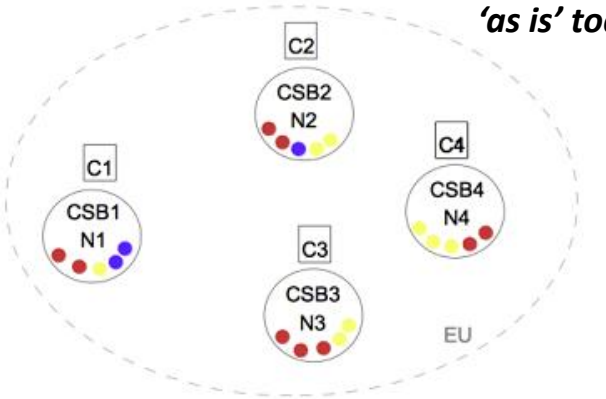
ITSLab in Smart4Cloud (PCP)

Agenzia per l'Italia Digitale

Main goal: to create a distributed cooperating ecosystem of **interoperable national brokers**, that will be responsible for discovering and consuming the cloud services **within a common EU digital market**.

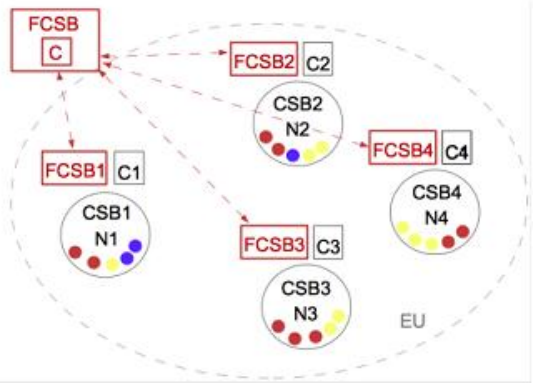
Considering the scenario of **Cross Cloud Federation,** the solution is made by several layers, each with its own capabilities as following: Iaas/Paas layers, **App Store** Layer, **Monitoring/SLA** layer, **Legislative enforcement** pillar and an **Orchestration** layer.

'as is' today



CSBi = national Certified Service Brokerage
Ni = European Nation
Ci = national Service Catalogue

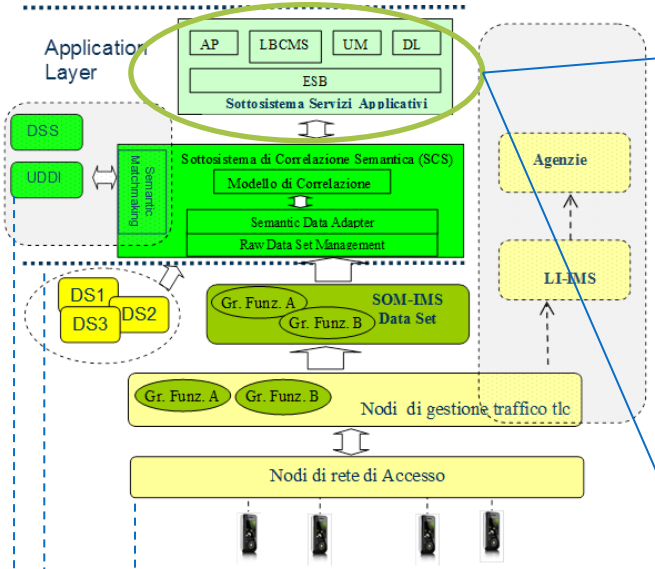
'to be' tomorrow



FCSB = Broker that manages and coordinates the actions of all the FCBSx
FCSBi = Federated Certified Service Brokerage
C = catalog that unifies service categorization, certification and legislative compliance

ITSLab in MISE project (SMGEO)

Ministero dello Sviluppo Economico



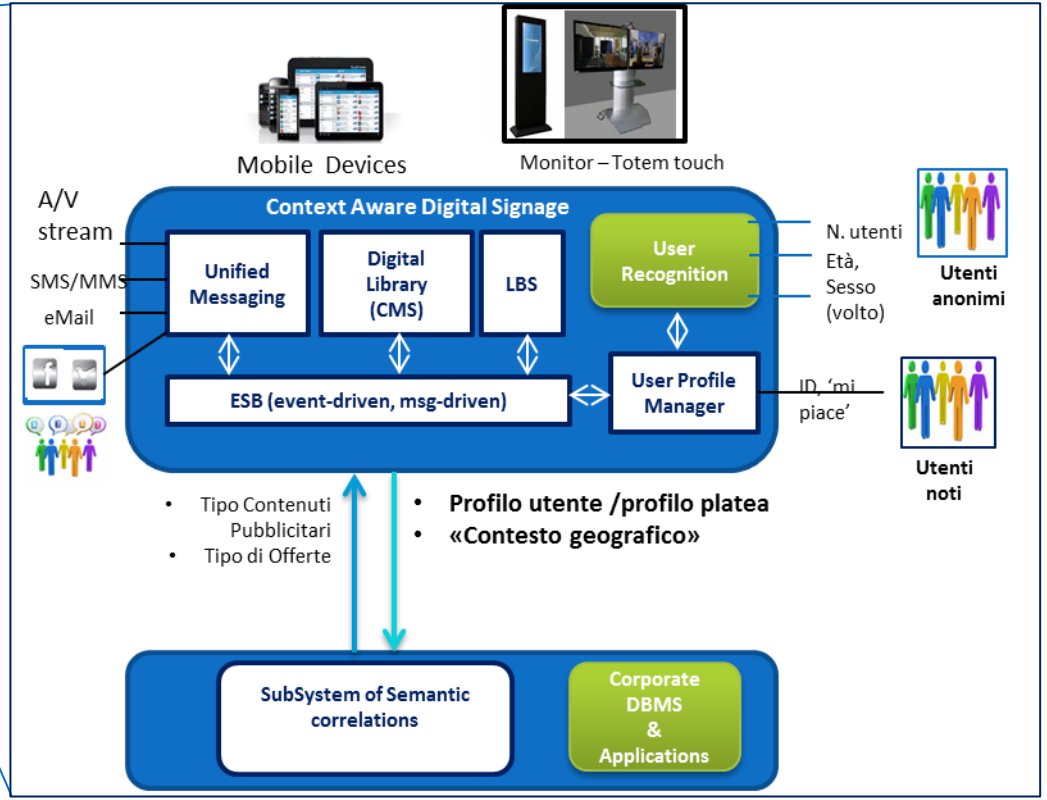
Mobile Access to App Services

Raw Data collected from IMS Network and ext. Data Set (DSi)

- IMS Nodes data set
- Semantic Data Adaptation

Semantic Correlation S/S

- Service Discovery
- Semantic Matchmaking



Smart Ship

ICT solution platform for maritime sector

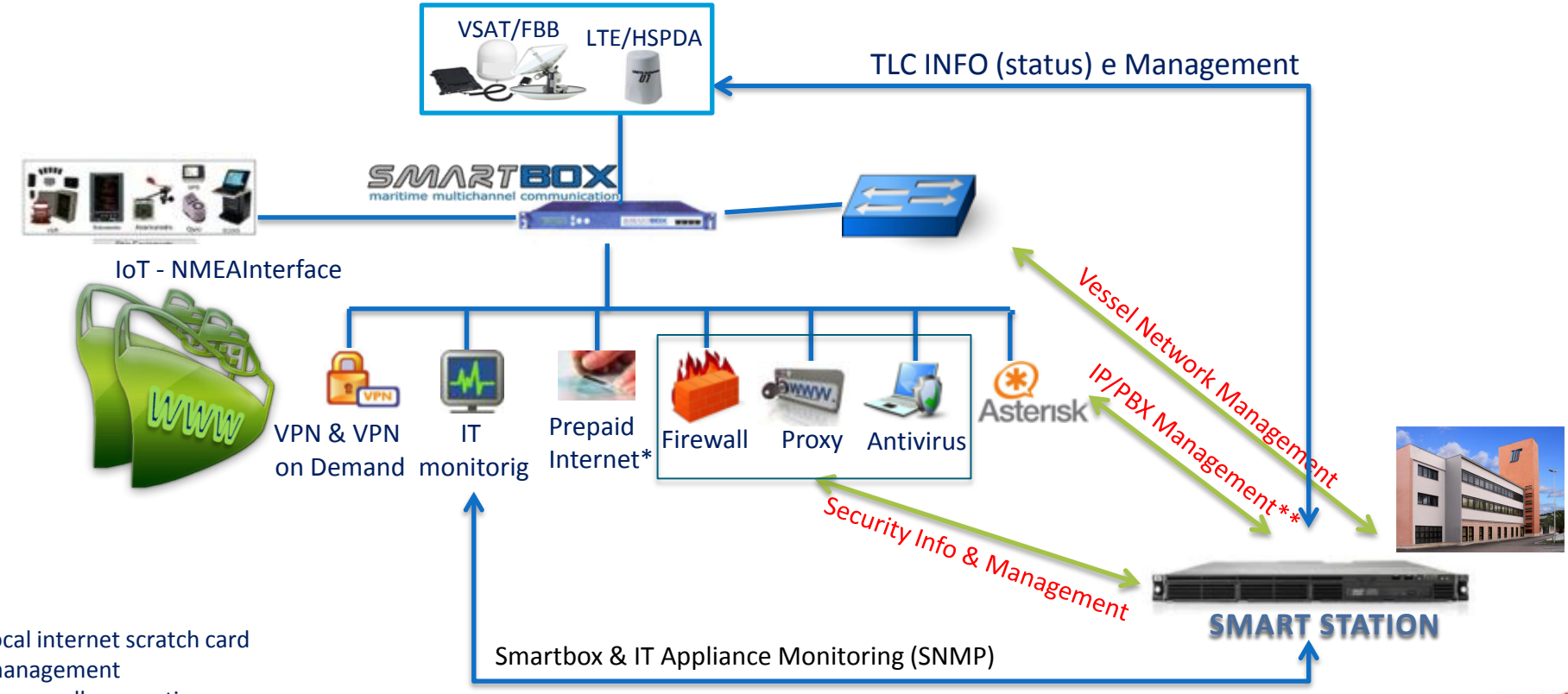
‘Smart Ship’: Integrated platform for maritime

SMARTBOX
maritime multichannel communication

Fleet Management System Fleet Security	Follower Tracking	WatchBlackBox	ShipWatcher
	Follower FMS	ShipView	
Crew/Passengers Welfare	CrewWeb/ONE	OneCom – BYOD on board	Follower Passenger
	DIMENSION SIGNAGE	DIMENSION TV	inTracks
TLC Operation Support Services	SENSIBLE (VSAT Bandwidth Management)	MOVECHECK	

‘Smart Ship’:Smart Communication Platform

Smart Communication Platform allow to optmise ship-to-shore and shore-to-ship communication making possible high reliability for eNavigation. It is made of on-board **SmartBOX**es and a centralised **SmartSTATION**

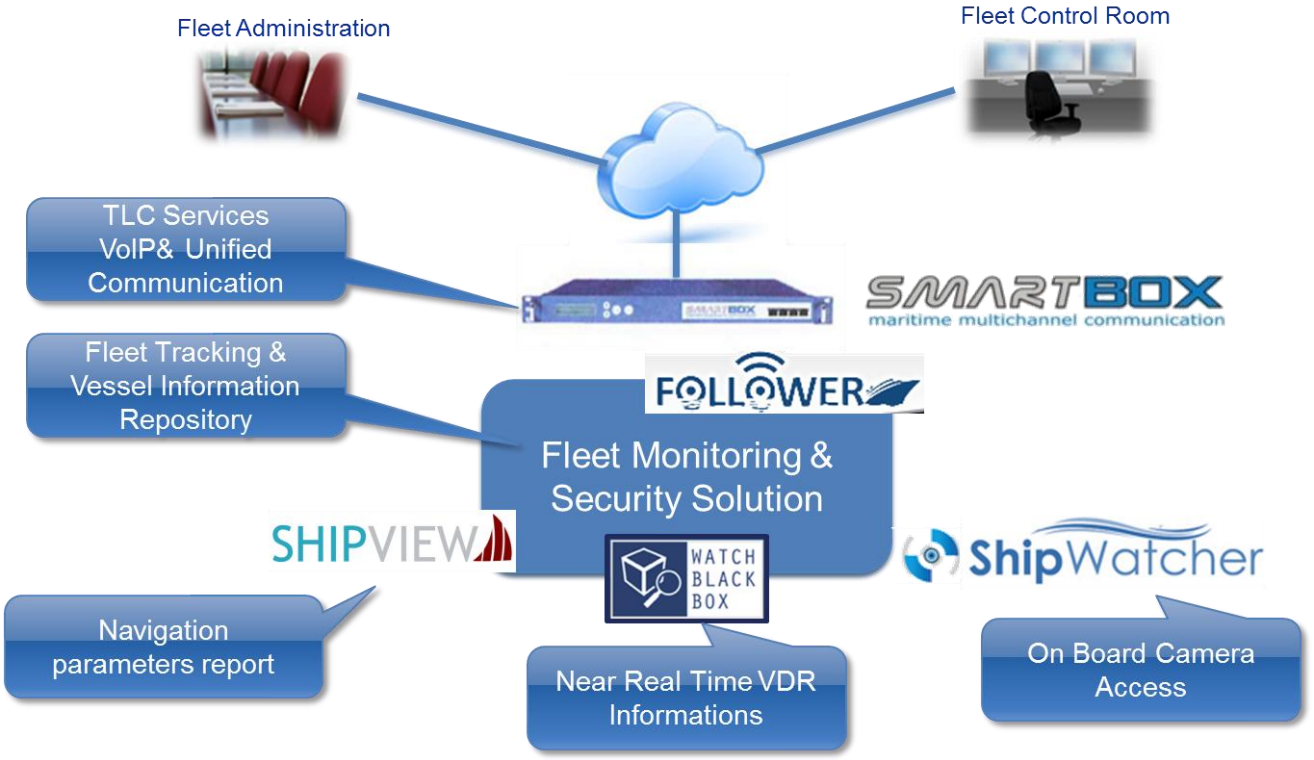


* Local internet scratch card management

** phone call accounting

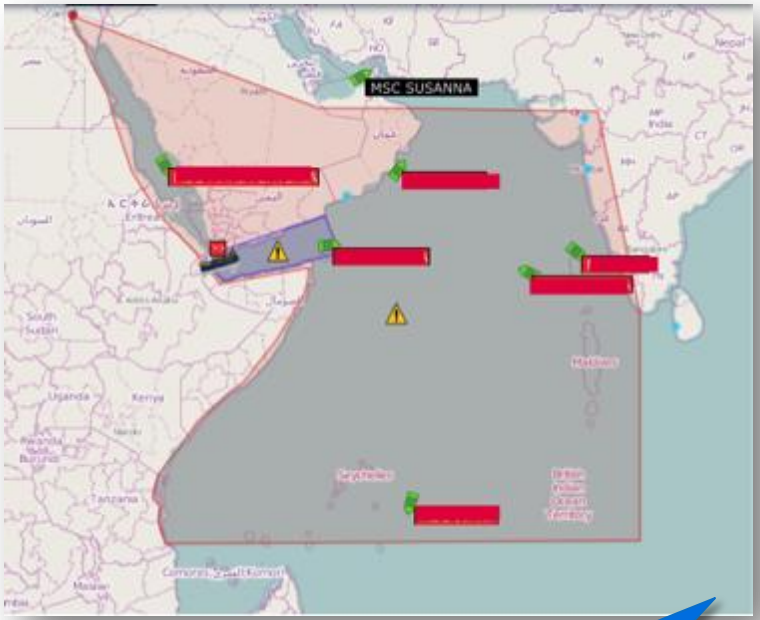
‘Smart Ship’: Fleet Management System

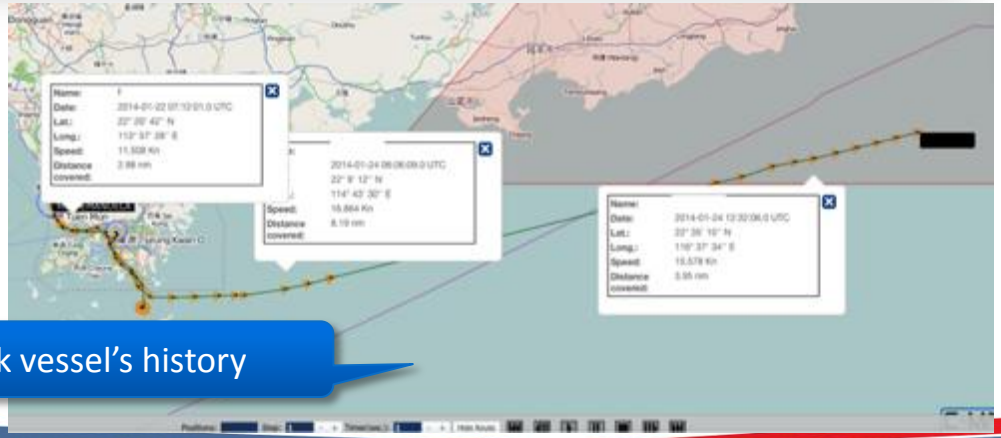
An integrated solution providing to shipowner HQ and connected Operation Centres advanced **tracking & monitoring capabiities** for improvement of voyage management **efficiency** and of risk management processes. On top of Smart Communication Platform.



‘Smart Ship’: «Follower»

Multichannel
Manage ships on one screen, on a smartphone or tablet





Track vessel’s history

Manage Special Zone

- MARPOL Special Areas
- Joint War Committee listed areas
- Security areas
- Particularly Sensitive Sea Areas

‘Smart Ship’: «Follower»

Detailed Ship Info

- Position, Destination, ETA, Ship Message
- Member on board, MMSI
- TLC Info e **direct call service**
- **VoIP, Chat e Direct Mail**

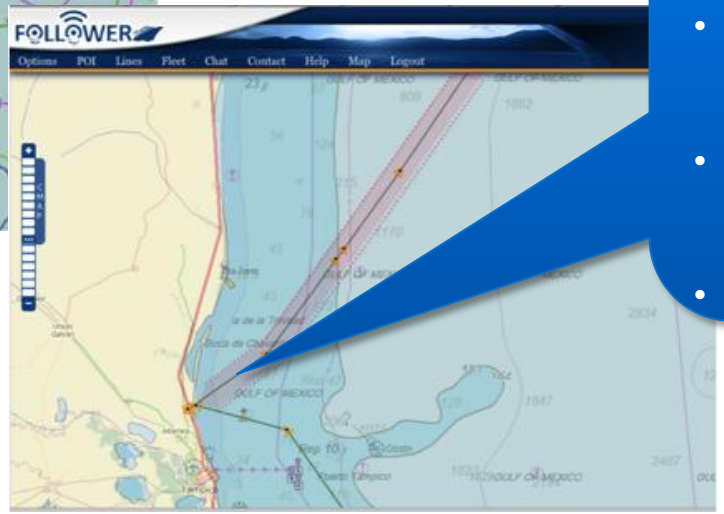
Route Management

- Route Design & Update
- Assign Route to Ship
- Route Control

‘Smart Ship’: «Follower»

Meteo Forecast

- Forecast of meteo conditions related to a selected route
- Correction of route based on meteo conditions



Voyage Monitoring

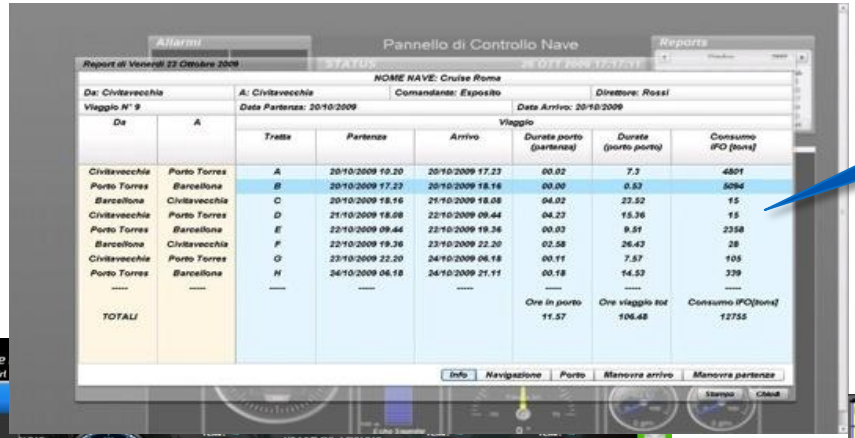
- up-to-date information on actual vessel route against the voyage plan.
- Positions vs. schedule ETA , speed and track (main critical voyage parameters)
- user-defined alarms and notifications, the on **ETA**, **over/ underspeed** and **off track**
- **On Board ECDIS integration**

Coming soon …

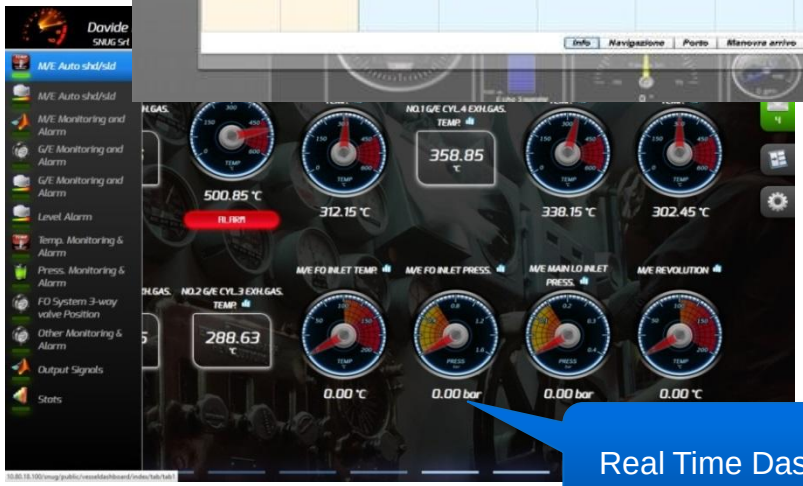
Risk Navigation Index … **Safety and Secure route** … **Continuous Goods Track**

‘Smart Ship’: «ShipView»

ShipView for the remote monitoring of main onboard **navigation and automation data** and **fuel consumption** (propulsion and generation engines);

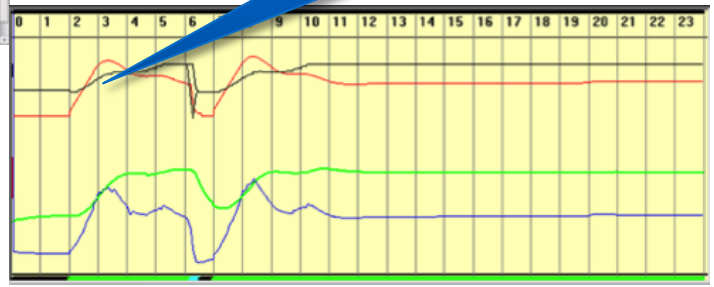


Voyage and Consumption report



Real Time Dashboard

24H report
Red= RPM
Green= Speed
Blue= Fuel cons.
Black= Pitch

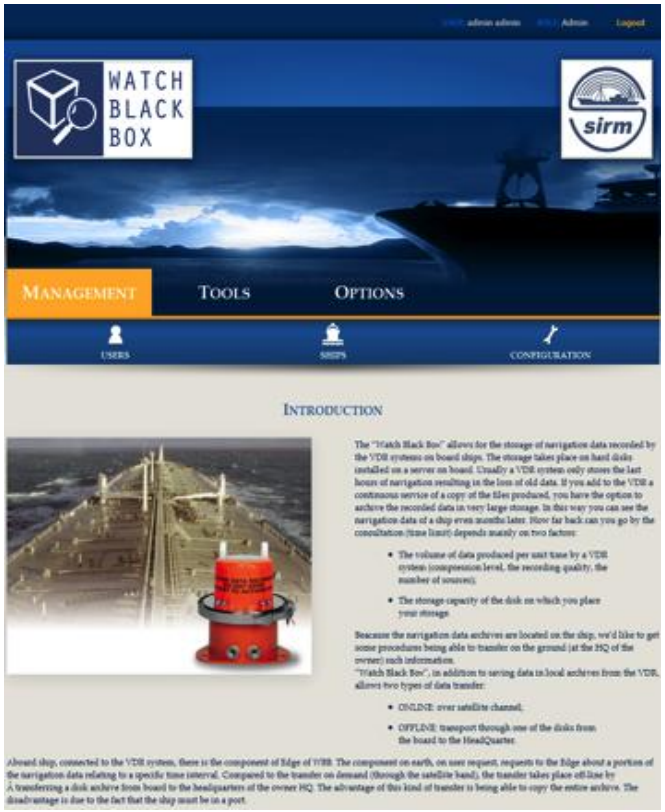


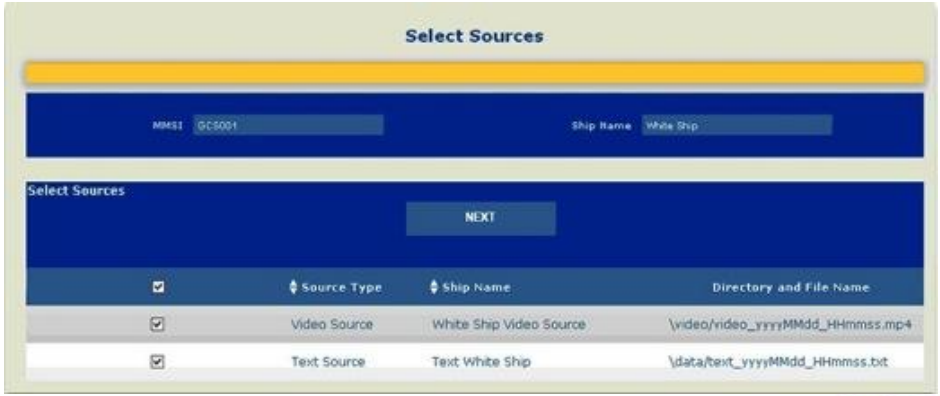
Coming soon …

CO_2 emissions (regulated)

‘Smart Ship’: «Watch Black Box» (remote VDR)

WatchBlackBox for the continuous backup of VDR data and synchronization with the ShipOwner Control Room: Data extraction: **off line** (physical HD); **on line** (on demand); **on alarm** (event based)





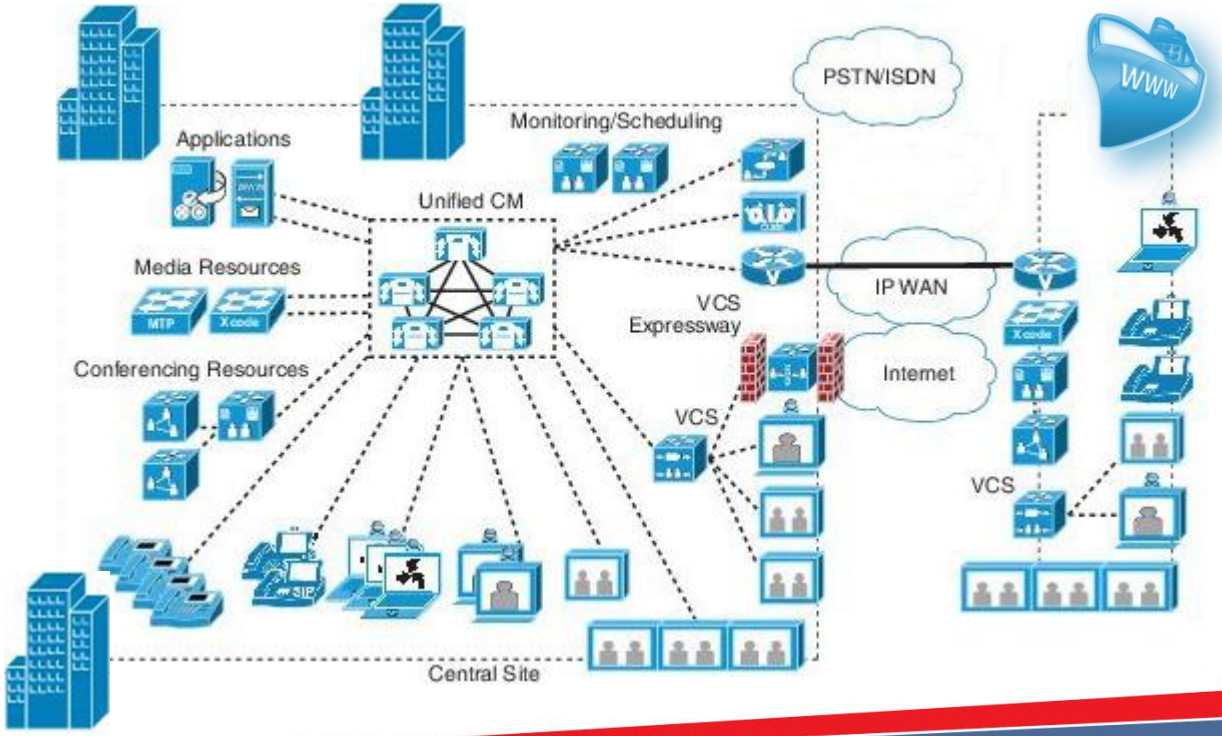
‘Smart Ship’: IMS-based Unified Communication

Fixed/mobile convergence will help integrate mobile and desk phones using **standards-based IP Multimedia Subsystem (IMS)** integration using commercial and/or open source available tools

Key Features:

- Access Management
- Presence
- Voice, video and messaging
- Instant messaging
- Mobility (BYOD)
- Self-provisioning and care
- Videoconferencing
- Network bandwidth accounting
- Session control

Shore-to Shore / Ship-to-Shore / Ship-to-Ship



Collaboration management: «weMeet»

Unified Communication is the hearth of a **Collaboration Service** platform and the management of **virtual communities.**

Key Features:

- User profiling
- Access Management
- Presence
- Voice, video and messaging
- Videoconferencing
- Application sharing
- Document sharing
- Session content archiving
- Open to be integrated with
  - LMS (teaching)
  - CMS (document)

Collaboration management: «Sonetto»

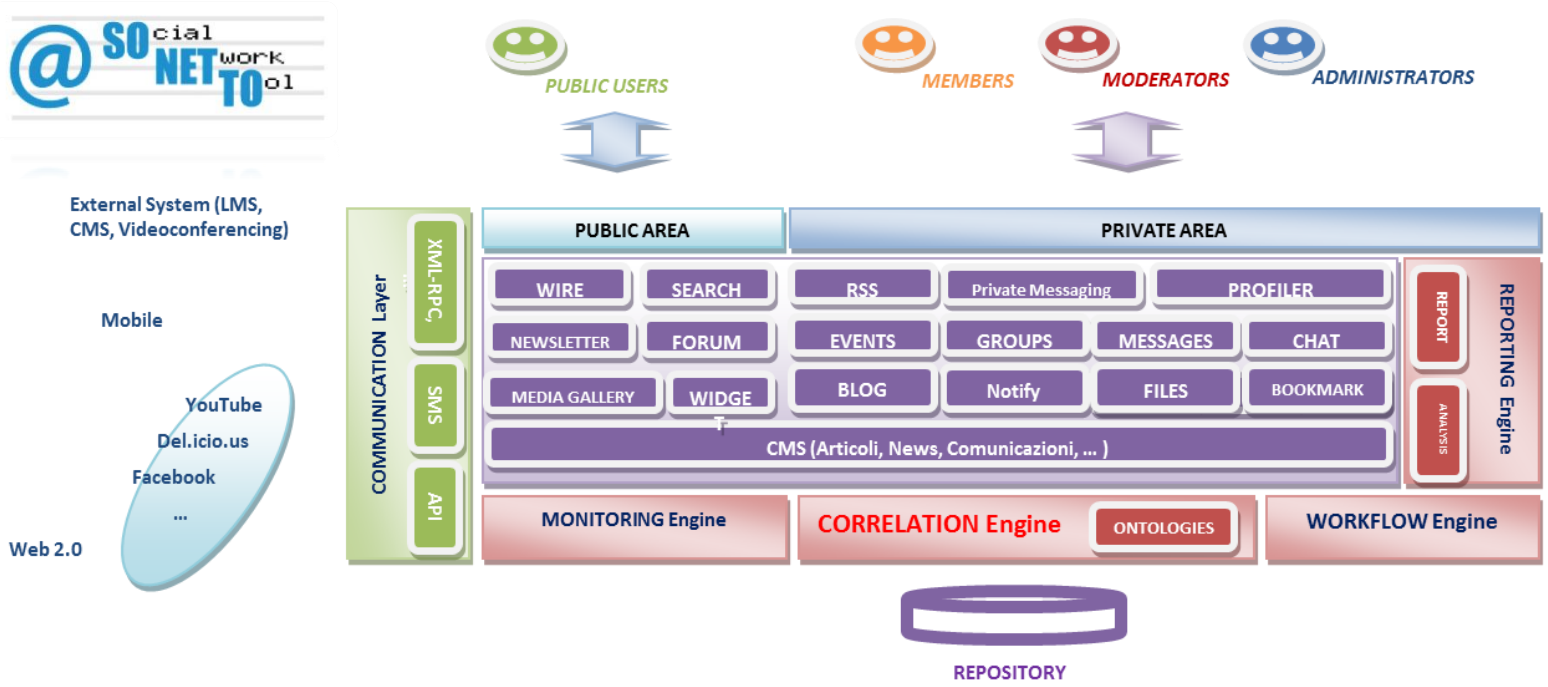
… a community is more than a meeting.

SONETTO joins together **business collaboration and communication services** offering to the users real-time interaction capability anywhere, anytime, and on any device.

Integrating a wide set of security controls it offers a secure and complete set of **collaboration tools** while maintaining total control over **companies' security and privacy**.

Device-management features based on user accounts, including tools to set **mobile security policies** such as device wipe, PINs.

Collaboration management: «Sonetto»



Thanks to a ***Semantic Reasoner***, **Correlation Engine** can correlate information related to social networking activities using one or more **ontologies**, with the goal to identify one or more **stereotypes**.

Semantic Analysis of data associated to a user profile and a **social behavior** allow to improve the knowledge of single actors and, in general, of the community. As a consequence the system (**recommendation module**) is in the condition to 'real-time suggest' business actions such as "should know that data", "should contact that expert", "could read about that matter".

Enterprise Application Store: the project

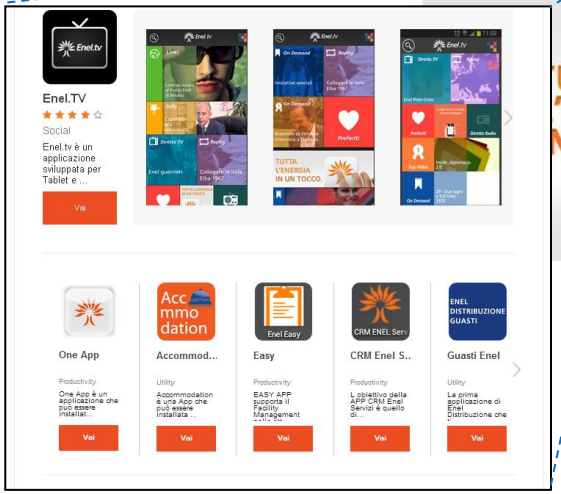
Page with App **Top Rated**

Page with the **latest** App

Download App from Mobile Device Browser

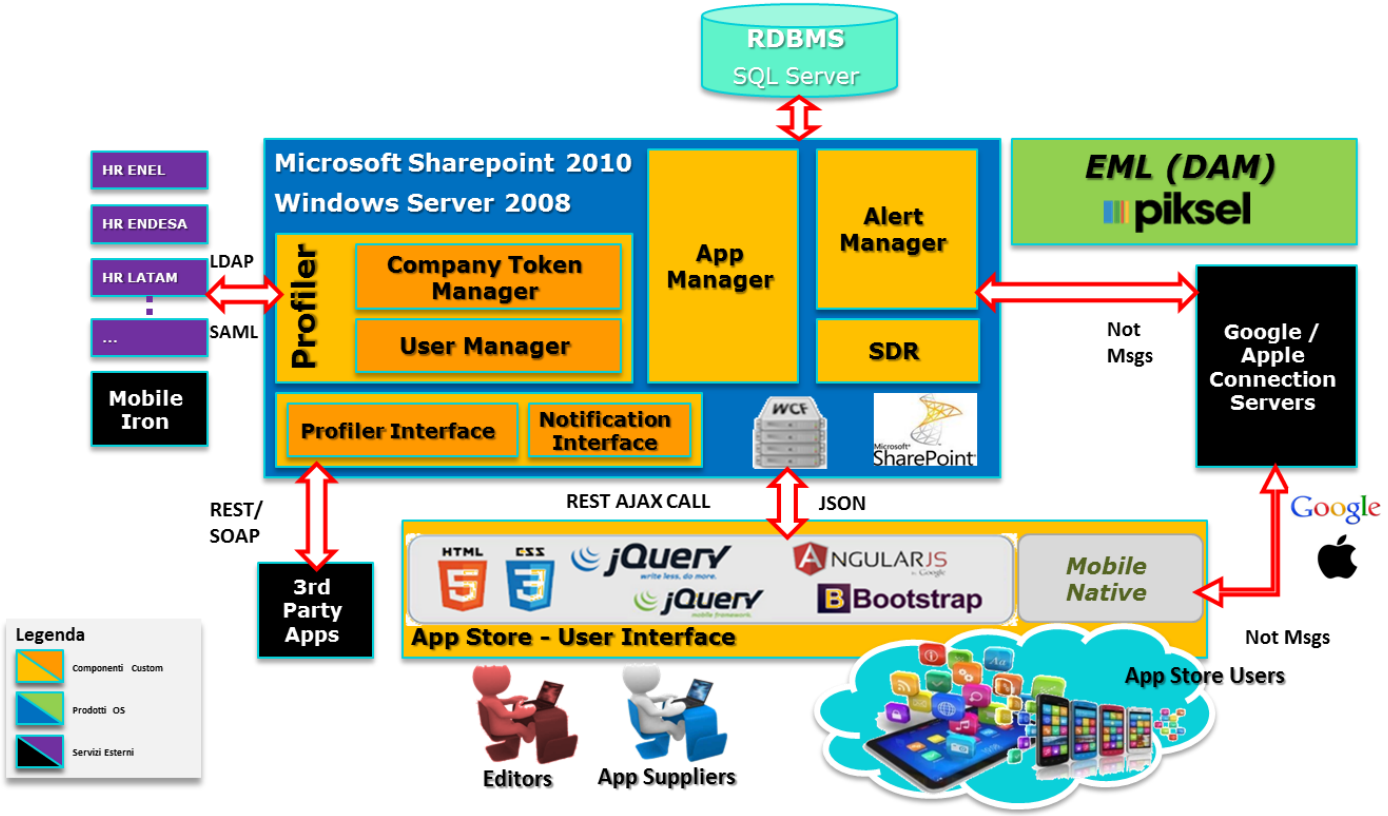
App list by **categories**

List of **booked App** from logged user



Partner of ERICSSON

Enterprise Application Store: success project



Application Store Architecture

Partner of ERICSSON

Can a Private Maritime Operation Centre be certified as a 'federated node' of EUCISE 2020?