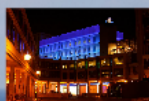




"Safety First"

Costa Group I&CT commitment

Il Gruppo Costa
è impegnato in
attività di ricerca e
sviluppo tecnologico



"Safety First"

Costa Group I&CT commitment







Costa & MIT

- COSTA acknowledges MIT and the Commission for promoting ML2
- COSTA is committed, as I&CT stakeholder of MIT, to cooperate with MIT, RINA and IB on
 - Anna - Advanced National Networks for Administrations
 - B2MOS - Business to Motorways of the Sea Projects
 - Monalisa

Organization

- A dedicated I&CT team to Safety and Nautical needs and projects across Costa Group
- Unique entry point for any requirement towards I&CT Dept.
- Standard I&CT skills plus specialized competences and on board experience



Nautical

Safety

- HT-SMS

HT-SMS

- Standard Routes & VP with safe corridors
- Alert calculation and notification
- Real time navigation, propulsion and cinematic informations
- Live radar images and webcams
- CPA/TCPA and UKC alerts





Nautical

Safety

- HT-SMS
- Route Planning & Alerting

Route Planning & Alerting System

The system

- Common Route & Corridor database
- Integration of corridors and alerts on SAM Navigation System

@ Bridge

- ECDIS Route planning based on safe corridors
- Integrated corridor alert on Navigation System

@ FOC

- Real ECDIS to design standard routes & corridors
- Corridor deviations integrated in HT-SMS interface



Nautical

Safety

- HT-SMS
- Route Planning & Alerting
- Bridge Simulator





Bridge Simulator - Transas NT 5000

- Costa's ships and ports models
- Ship Handling
- Port mooring assessment
- Itinerary Risk management
- Crisis simulation
- Common interface with other simulators
- Technological test platform for Bridge Evolution



Nautical

Safety

- HT-SMS
- Route Planning & Alerting
- Bridge Simulator
- Other projects

BOQA Project

- Bridge Operational Quality Assurance
- Triggers, alerts and trends
- Fully integrated with HT-SMS
- Common Database for all Operating lines across Corporation
- Standard for Carnival Corporation

Emergency Support Unit

- Management of the entire emergency workflow
- First entry point for emergency phone calls from the ships
- Automated form to collect relevant crisis informations
- Automatic phone activation in case of emergency for both Crisis Team and Care Team
- Crew and pax lists updated shoreside every 30 mins

Meteo Integration


- Usage of NOAA charts layers and itinerary specific weather forecasts on HT-SMS
- Integration of local anemomethers into HT-SMS
Savona Port Authority - UniGE - Vento& Porti
- Detailed wind field of North Tyrrhenian to be integrated into Bridge Simulator



Nautical



Safety

- 
- HT-SMS
 - Route Planning & Alerting
 - Bridge Simulator
 - Other projects
-
- CO₂ Evacuation & Mustering

CO2 Evacuation & Mustering

- To speed up evacuation role call in case of fire
- To maximize effectiveness of CO2 extinguishing system
- Combination of RFID + WiFi technology
- Personnel localization in engine areas using TAGs
- People counters at entrances for enforcing TAGs usage
- RealTime evacuation monitoring software
- Man Down button for injured personnel

**TAG OPEN
ENGINE DOOR**



Nautical

- HT-SMS
- Route Planning & Alerting
- Bridge Simulator
- Other projects



Safety

- CO2 Evacuation & Mustering
 - Boat Drill & Real Emergency
- 

Boat Drill & Emergencies Process Revision

- To have real time pax&crew mustered vs not mustered
- To address both real emergencies scenarios and drills
- To read cards @ MMSS
- To be used in Blackout thanks to PDAs and Portable Rugged server

Costa & MPT cooperation priorities

- Safe Routing and ships realtime monitoring
- Electronic mustering
- "e-administration" to go on with development of Electronic Log Book.

COSTA Group is ready to play a key role
on future projects in cooperation with MPT



CARNIVAL

CORPORATION & PLC



Q&A



C

Thank You!