SAFETY @ SEA
Digital Transformation in fleet governance processes

Carnival Maritime | IT
Trieste 1-2 April 2019
The Digital Transformation
Business requirements

Carnival requirements: ........... a single shore-side based support & data analysis solution

Challenge: ........................... several hardware vendors spread across the fleet

Goal: .................................. share data real time with Fleet Operation Centers

Possible solutions:

1. to align the whole fleet to one hardware vendor, or ..... 
2. to build own «multivendor» solution
Key Figures

9 CARNIVAL GROUP BRANDS

>100 SHIPS USED BY 9 CARNIVAL GROUP BRANDS

>1500 SIGNALS COLLECTED

>4.5M SAMPLES EACH DAY EACH SHIP USED BY >100 SHIPS

>10TB DATA/YR

3 FLEET OPS CENTERS

HAMBURG + SEATTLE + MIAMI
Neptune Live

Is a strategic tool that enables the Fleet Operation Centers in supporting the whole Carnival fleet ensuring an equivalent level of Safety across all the brands.
Neptune Live

Real time monitoring of navigation based on Official ENC nautical maps
Neptune Live

Meteo Forecast
Neptune & STM (Sea Traffic Management)

This is the next step for a safer, more efficient and environmentally friendly maritime sector

Sea Traffic Management connects and updates the maritime world in real time, with efficient information exchange.

Through data exchange among selected parties such as ships, service providers and shipping companies, STM is creating a new paradigm for maritime information sharing offering tomorrow’s digital infrastructure for shipping.

STM Services allow personnel on-board and shore-side to take decisions based on real-time information. These services enable more just-in-time arrivals, right steaming, reduced administrative burden and decreased risk related to human factors.
# Neptune & STM (Sea Traffic Management)

<table>
<thead>
<tr>
<th>300 Ships</th>
<th>43 M€ budget (50% financed by EU)</th>
<th>+50 Partners</th>
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</thead>
<tbody>
<tr>
<td>13 Countries</td>
<td>Public, Private and Academic sectors involved</td>
<td>13 Ports</td>
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<tr>
<td>5 Shore Centers</td>
<td>10 different type of services for data exchange</td>
<td>Goals by 2030:</td>
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- **Safety**: 50% reduction of accidents.
- **Efficiency**: 10% reduction in voyage costs and 30% reduction in waiting time for berthing.
- **Environment**: 7% lower fuel consumption and 7% lower green house gas emissions.
The transformation is going ahead....
authors

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