

Challenge name: Crewing – Crew Management System

Description

The Crew Management System (CMS) is about advanced planning—checking availability and suitability of crew for a vessel and initiating crew change according to the vessel schedule, ensuring regulations are followed.

Example: We need a captain on one of our vessels and have a list of available captains (those with no confirmed assignment). Using a set of criteria such as valid licenses and certificates, crew matrix (years of experience), availability, visa requirement and cost, who is the most qualified to join?

Current status

Various systems are used for advanced planning, crew change, vessel schedule tracker and documentation check with a lot of manual processing. This reduces operational efficiency and increases cost.

Desired benefits

The crew management system should improve productivity and result in more organized planning. The CMS will be able to efficiently assemble crew based on qualifications, vessel/crew requirements and availability. It will instantly notify of scheduling conflicts for resources or labour that may affect the budget. It will plan crew changes and automatically validate all certificates and licenses for the period on-board. Furthermore, the CMS should reduce hotel and transportation costs, and avoid costly errors.

Solution criteria

- A planning tool
- An interface/application (real-time integration)

Data sets

- MAPS Data (Crew Database incl. crew matrix, contract length)
- Tramos (Vessel Schedule)
- Historical port agent rates
- Average airfare rates
- Crew visa requirement
- FO1 (crew salary) and FO2 (shifting cost) Budget
- ABC Crew Matrix

Clues to get started:

- Which vessels are expected to have a crew change?
- Identify gaps in planning and expected date for replacement
- Identify licenses and certificate requirements for each vessel
- Define cost effective ports for crew change
- Define matrix requirement for each vessel

- Define ships complement
- Define vessel budget