



Marine Traffic Management System

Vessels travelling to and from a port generate an area full of concentrated traffic in the vicinity of the port. Ensuring safe traffic is paramount but not the only concern. A lot of parties are involved in the movement of a vessel, like captains, agents, pilots and not least the port itself. All parties must cooperate, but each party has its own concerns and uses their own system. It is possible to address these concerns one by one, but an integrated approach offers a far better path for growth. An unrestricted flow and accurate prediction of incoming and outgoing traffic is crucial for the port.



ARS T&TT Marine Traffic Management System

ARS T&TT offers the Marine Traffic Management System (MTMS) as a complete solution for the planning and management of vessel traffic. At the core of MTMS are the traffic services. MTMS integrates with the radar system and other systems, such as Meteorological/Hydrographic systems, voyage planning systems and pilotage information systems when applicable. Combining radar display with full vessel movement information and expected traffic significantly improves the quality of the traffic services. However, MTMS offers more than traffic services because it is designed for an integrated approach. The scalability of MTMS allows to integrate other vessel-oriented services like pilotage and lock planning. As a result, creating a platform encompassing all aspects of vessel logistics.

Uniform handling of traffic

MTMS supports all the steps for handling vessel movements. The operator is supported by showing the real-time status of a vessel movement and he can quickly see any steps that still need to be completed. The completed steps are logged and can easily be retraced for auditing purposes.



Prediction of vessel movements

An advanced route and prediction model is implemented in MTMS. The model is based on the hydrography of the region and takes vessel characteristics like type and speed into account. The model offers automatic route determination and calculation of passage times along the route. Knowing exactly when a vessel will be where creates the opportunity to plan and coordinate activities. It also allows the optimization of traffic flow and the avoidance of congestions.





Single point of information

MTMS offers a set of services to exchange information with other systems. Extending MTMS with information from other sources creates a single point of information. Furthermore, problems caused by duplicate entry of information is avoided resulting in a single truth. This in turn results in direct access to complete and accurate information of a vessel movement from start to finish.

Exchange of information is a key factor on the road to autonomous shipping. Smart ships will greatly increase the amount of information and drive the need to consolidate information in a single system.



Base platform for growth

An Enterprise Service Bus (ESB) is incorporated in MTMS as part of the solution. The ESB not only serves the integration between the MTMS components, it also is a flexible point of integration for external systems. Reducing the time and cost of integration and without the need for the implementation of a separate ESB. The ESB makes MTMS suitable as a base platform for extending the functionality when business needs grow.

Key features

- Extendable architecture
- Advanced route and prediction model
- Incorporated Enterprise Service Bus
- Single point of information

Further enquiries

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