



Case study:

Tackling the Port State Control Data Challenge

Find out how our industry-leading data management capabilities are empowering vessels, shipowners, charterers and others to reduce port call times and optimize supply chains, by streamlining Port State Control compliance.



The Challenge

Port State Control (PSC) is fundamental for the safe operation of the maritime, shipping and logistics sector. However, surfacing and submitting the data points required for this review of seaworthiness is a laborious, manual process for most vessels. The situation is complicated by a lack of standardization, with ports around the world imposing different PSC requirements based on regional memoranda of understanding (MOU). The net result for vessels, shipowners, charterers, and others is a significant operational overhead and inefficiency at a time when the industry is under pressure to optimize port calls and supply chains.

IHS Markit's Maritime & Trade (M&T) team is very familiar with these challenges and has worked with customers to streamline the PSC process. As part of this effort, M&T collects PSC data from MOU organizations around the world and makes the aggregated data available to vessels, shipowners, and charterers, who draw on it to help complete their PSC submissions.

While this aggregated data feed has helped industry participants, the PSC data it supplies is raw, unvalidated and represented in a multitude of formats. IHS Markit's M&T specialists saw an opportunity to add more value and further streamline the PSC inspection process by leveraging Enterprise Data Management (EDM) for Maritime, a cloud-based workflow automation platform with data management at its core, which is also part of IHS Markit's suite of solutions for the maritime, shipping and logistics sector.

"PSC content presents a number of data management challenges," says Ashlee Williams, VP, Data Operations, Client Services and Customer Care, M&T, IHS Markit. "Vessel-related inspection data is ingested from multiple sources. The accuracy of the data needs to be validated, the data attributes need to be standardized and gaps need to be filled so that reporting vessels and MOU organizations can be confident in the data. When considering our technology delivery roadmap, it was clear that EDM offers the functionality needed to address these data management challenges and, by combining EDM with our own PSC datasets, we could deliver an enhanced, integrated solution that would streamline what remains a time-consuming, cumbersome and costly process."

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Getting to Grips with the Data

IHS Markit's EDM platform is used today by many different types of organizations in the maritime and shipping, financial and energy industries to optimize workflows and create a centralized, validated source of data for use in decision-making.

EDM integrates and normalizes data from multiple sources; applies data quality checks; and creates a master record for use in downstream applications. This ensures confidence in the data and empowers users to make informed decisions about commercial, operational, planning, scheduling, billing, vessel vetting, compliance and sustainability activities.

EDM is deployed on the Amazon Web Services (AWS) cloud, supported by a full managed service to alleviate technology maintenance costs and ensure best practices are met. With its market-leading cloud security and data privacy, its ability to scale up or down based on demand, and its cost-effectiveness, AWS provides the capabilities required to support successful data management.

The Integrated Solution

M&T is now using EDM to aggregate PSC data from MOU organizations around the world. EDM normalizes the data from disparate MOU organizations into a common format; applies technical and business rules to assess the quality of the data; and matches similar and related data to create a master record. The output is consistent, validated data that can be used off-the-shelf for PSC inspections.

“The data we collect from the MOU organizations comes in different formats and adheres to different standards of data quality,” explains Williams. “Double counting caused by different MOUs reporting on the same vessel inspections adds further complexity. EDM addresses all of these issues. In the case of double counting, EDM’s powerful matching capabilities have cut out the noise by creating unique inspection records for each vessel. This makes our PSC data service far more user-friendly for customers off the bat.”

“EDM is an excellent fit for PSC due to its robust data integration, validation and master data management capabilities,” says James Kwan, Business Lead, EDM for Maritime, IHS Markit. “By integrating these capabilities with our M&T datasets, we can streamline the PSC process, reduce the amount of manual intervention, and deliver data that can really be trusted. Partnering with AWS provides flexibility, scale, and adaptability, which are imperative for managing fluctuating data volumes.”

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The Impact

The integrated PSC data solution is being used by a range of industry participants today, including vessels, shipowners, and charterers. It has significantly reduced the operational burden and time required for these organizations to complete the PSC process. Industry participants can now compete more effectively by reducing port call times and optimizing supply chains, driven by greater efficiency and confidence in PSC-related decision-making.

For more information about EDM for Maritime, please visit:

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