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CHARTING A PROFITABLE COURSE

Navigating the complexities of commercial voyage management to achieve competitive advantage

Fiona Macdonald

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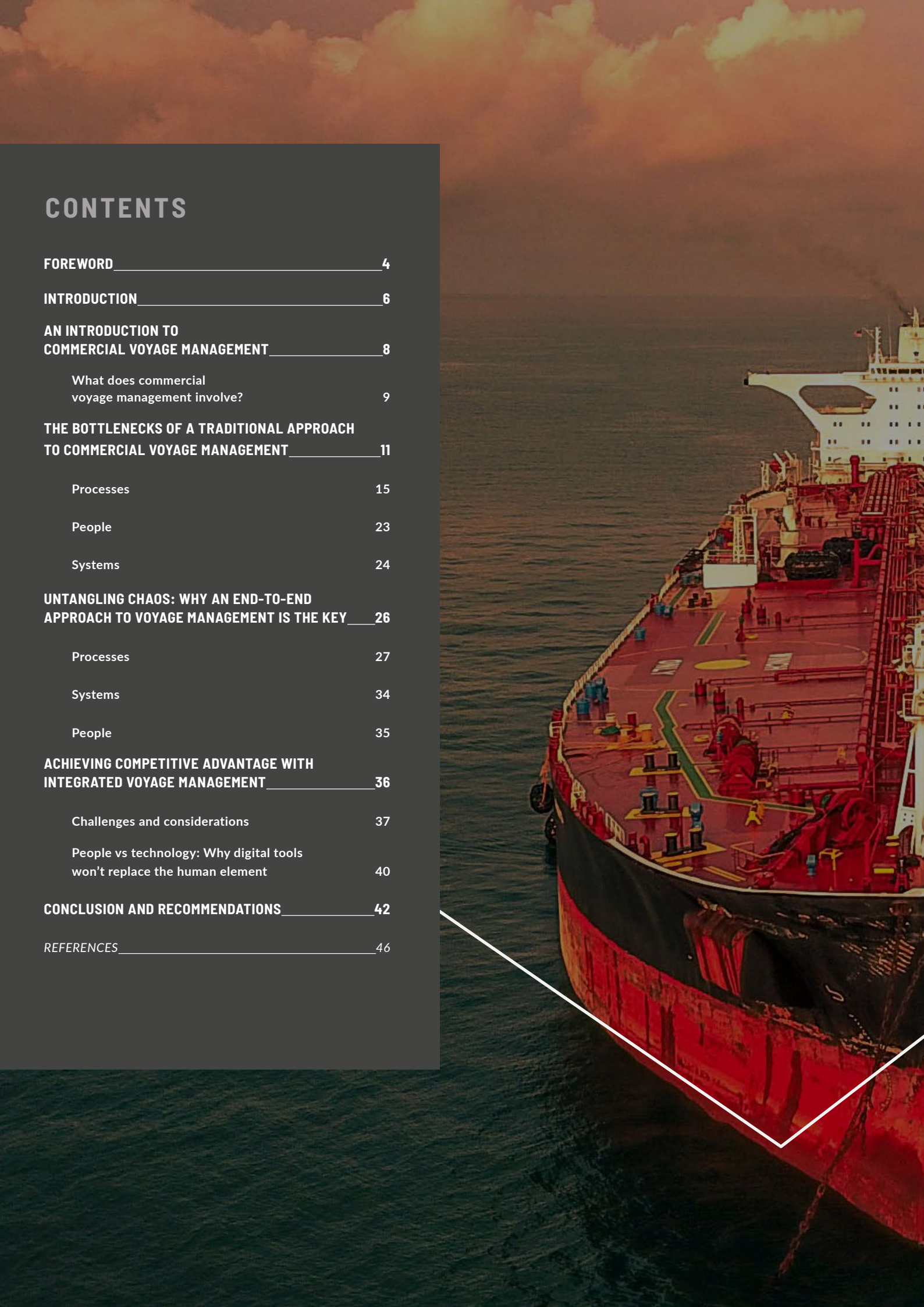

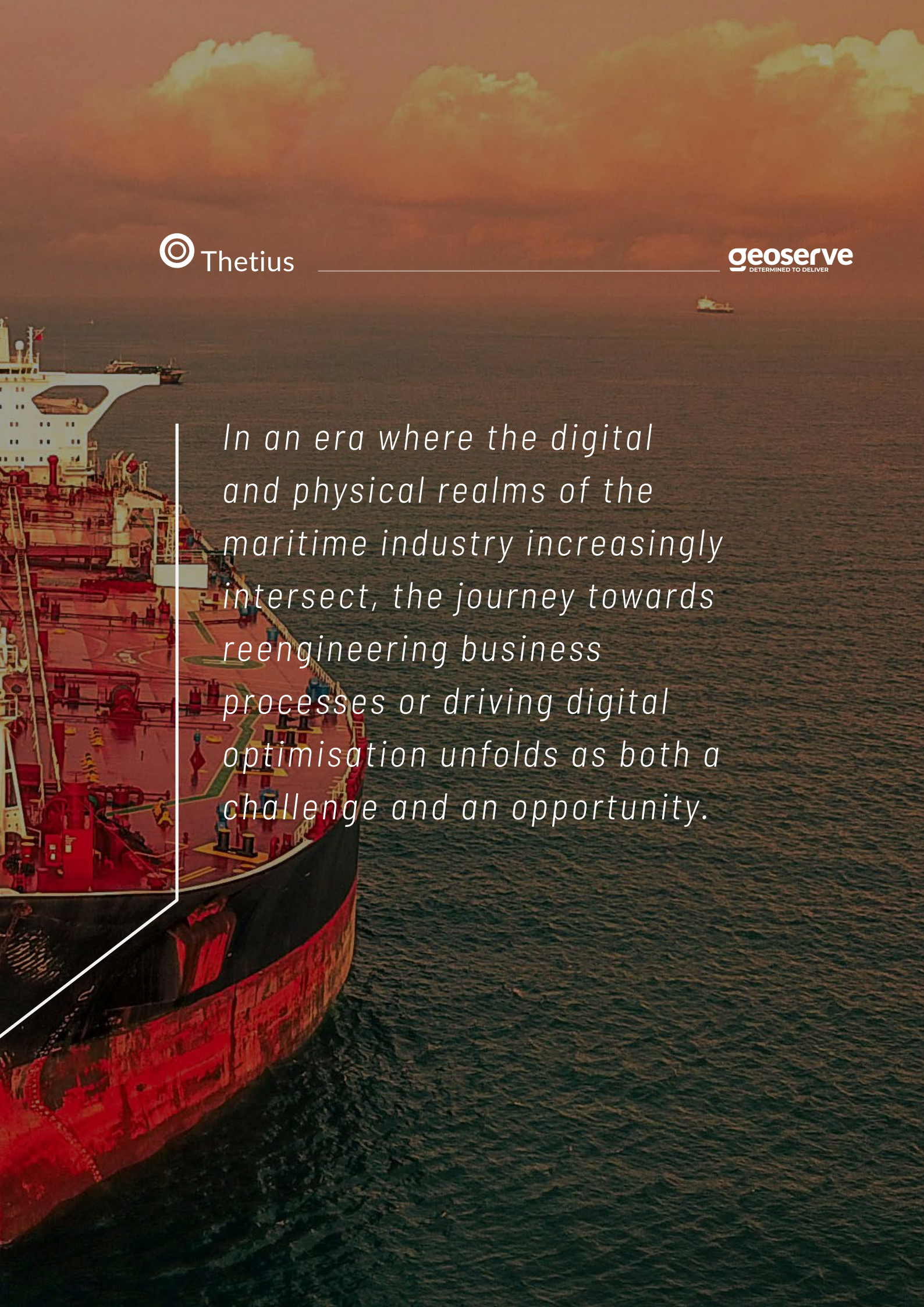

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FOREWORD

SANJAY KAPOOR, CEO, GEOSERVE

The safe and efficient passage of a vessel from port A to port B is more than a pre-planned and properly executed voyage; it is a complex orchestration comprising various decision points, operational processes, and logistical systems. At the heart of this journey lies the commercial management of the voyage, a critical factor in improving long-term profitability.

Despite technological advancements and the increased availability of data, the maritime industry continues to face unnecessary inefficiencies and challenges in commercial voyage management.

Despite technological advancements and the increased availability of data, the maritime industry continues to face unnecessary inefficiencies and challenges in commercial voyage management.
This report delves into the intricacies of traditional approaches, highlighting the bottlenecks that hinder operational efficiency, the siloed data promoting a reactive rather than proactive stance, and the ineffective communications that elevates the risk of costly human errors.

In addressing these traditional challenges, the report aims to highlight the concept of an integrated or end-to-end approach to commercial voyage management; this holistic approach can rise above the constraints of more traditional methods. Viewing this through the lens of a whole-system approach integrates workflows, facilitates more efficient and effective communication, streamlines processes, and supports better decision-making. This brings a range of benefits to the processes of a voyage, the systems used, and the people who operate them.

We are pleased to support Thetius in this research, offering valuable insights into the strategies and practices necessary to navigate these challenges. The report draws upon real-world examples and best practices from industry leaders. Their experiences illuminate the complexities of current voyage management practices, underscoring the potential for costly mistakes and showcasing the advantages of an end-to-end approach that fosters better communication, process efficiency, and decision-making.

From optimising decision-making and integrating data and workflows across pre-fixing planning, post-fixture execution, and post-voyage analysis, it provides stakeholders with improved and increased visibility and control. This is necessary to drive optimal commercial voyage performance.

Breaking down organisational silos and improving collaboration between commercial departments fosters a culture of agility and adaptability. This is imperative in today's rapidly evolving industry landscape. Yet, the journey towards the successful implementation of end-to-end voyage management is not without its challenges. It requires a strategic alignment of technology, processes, and human capital, coupled with a commitment to change management and continuous improvement.

In an era where the digital and physical realms of the maritime industry increasingly intersect, the journey towards reengineering business processes or driving digital optimisation unfolds as both a challenge and an opportunity. This report highlights current innovations, such as those offered by GeoServe, making a tangible impact, and pointing out the benefits and opportunities for those ready to adopt new operational strategies.

Whether you are a new player looking to establish a commercial voyage management desk or an existing vessel operator seeking to enhance operational efficiency and profitability with innovative solutions, this report may offer you valuable insights.

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INTRODUCTION

In shipping, every voyage executed has to make commercial sense. There are a multitude of processes and many technical aspects that are managed by different people.

Decisions are made based on visible data, but since a significant portion of the data is confined in different systems, these decisions may be based on incomplete information. This leads to individuals or departments selecting a path for certain processes or segments of a journey by either incorrectly or only partially considering the full scope and the potential consequences it could entail elsewhere.

This siloed approach to data and decision-making leads to inefficient voyage performance or, in some cases, reduced voyage profitability. For example, a vessel operating with a fouled hull, or one that consumes more fuel than necessary, or exceeds fuel consumption stipulated in the charter party, is likely to incur increased fuel costs. This may lead to claims, elevate voyage expenses, and could potentially result in a less-profitable voyage. In another scenario, bunker procurement planned without considering available options en route, weather, or terminal restrictions could lead to delays and off-hires, resulting in loss of time and adversely impacting voyage profitability.

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These challenges and inefficiencies in commercial voyages are present today. As a result, there is a growing demand from both the ship and the shoreside to obtain greater insight from the advanced technologies that simplify workflows to enable more seamless decision-making.

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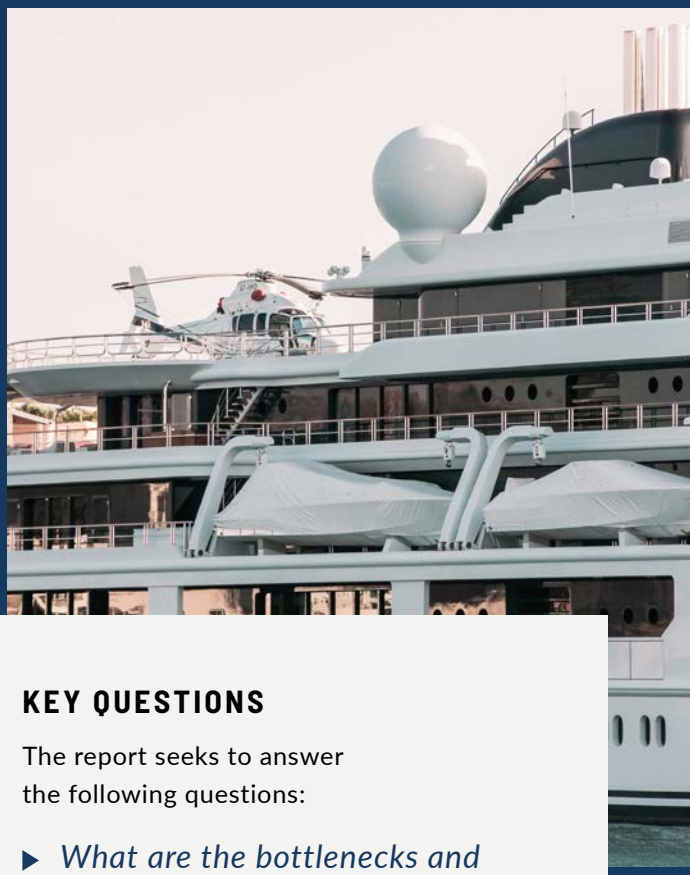
The purpose of this report is to bring to light some of the current inefficiencies and bottlenecks in commercial voyage management today and illustrate how an end-to-end approach to commercial voyage management can enhance operational efficiencies and improve the profitability of the voyage.



An end-to-end or integrated approach to commercial voyage management combines data and workflows from the entire process, from pre-fixture planning, post-fixture voyage execution, and post-voyage analysis. In doing so, a complete and real-time view of the voyage is provided. The vessel operator is able to achieve better situational awareness, enabling more data-based and informed decision-making. Furthermore, this approach can enhance efficiency by decreasing the time and effort needed to access and interpret data. Streamlining these processes will allow vessel operators to untie the commercial knots, thereby allocating more time to other critical tasks, such as improving internal and external customer engagements or enhancing vessel performance.

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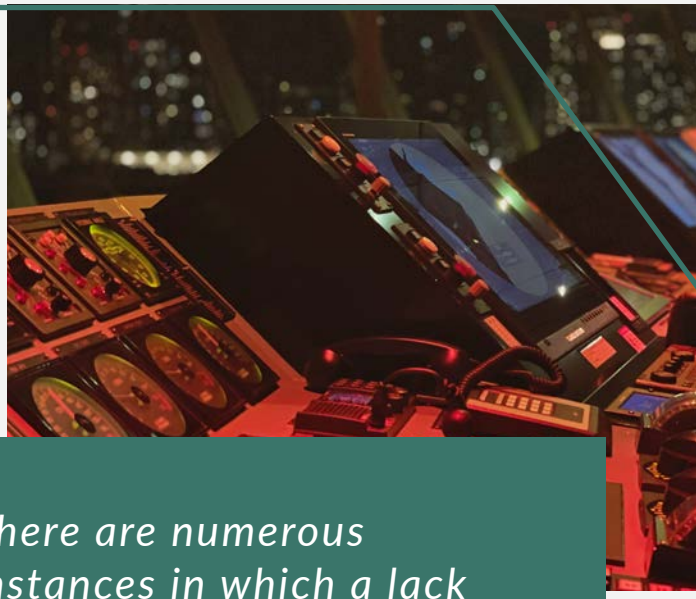
KEY QUESTIONS

The report seeks to answer the following questions:

- *What are the bottlenecks and challenges in the traditional approach to commercial voyage management?*
- *What is an integrated or end-to-end approach to commercial voyage management and how does it differ from traditional methods?*
- *How does an end-to-end approach to commercial voyage management impact processes, systems, and people?*
- *What strategies and practices are needed to successfully implement the end-to-end approach in commercial voyage management?*

AN INTRODUCTION TO COMMERCIAL VOYAGE MANAGEMENT

In any given voyage, there are multiple stakeholders involved, various decisions to be made, and an array of uncontrollable factors that have the potential to increase the level of risk involved.



Even a slight miscommunication or delayed data sharing about a voyage between team members can send the vessel and its Profit & Loss (P&L) completely off from the original plan. Whether the result is a minor loss or a major catastrophe, the importance of streamlined access to insights across systems and simplified workflows should not be underestimated.

Recognition of maritime shipping and its pivotal role in facilitating global trade through the transportation of goods and commodities worldwide is well known. Lesser known are the complexities that exist in the commercial management of these voyages that are fundamental to the wider supply chain and its effective operation. This is a multifaceted process that includes pre-fixture functions, including port feasibility and cargo suitability, post-fixture such as bunker risk management, port service contracts and post-voyage completion areas like laytime and claims performance management.

There are numerous instances in which a lack of understanding exists between the parties involved in an entire voyage. This can and often has been costly.

Inconsistencies, oversights, and bottlenecks in understanding at any stage in this entire process can be detrimental. There are numerous instances in which a lack of understanding exists between the parties involved in an entire voyage. This can and often has been costly.

The pre-fixture stage is the foundation of voyage management, focusing on the preliminary arrangements before a vessel is chartered.

WHAT DOES COMMERCIAL VOYAGE MANAGEMENT INVOLVE?

Commercial voyage management is an essential aspect of the shipping and logistics industry, involving a complex process designed to ensure the efficient and profitable operation of vessel voyages. The entire management process can be broadly divided into three main stages: pre-fixture, post-fixture (voyage in progress), and post-voyage completion.

PRE-FIXTURE

The pre-fixture stage is the foundation of voyage management, focusing on the preliminary arrangements before a vessel is chartered. It starts with assessing the supply of tonnage by examining the position/tonnage list, which provides information on available ships. Concurrently, the demand for cargo is evaluated through the cargo list, which details the types and quantities of goods needing transportation.

Screening vessels using compliance and risk management software is a critical step in this stage. This ensures that the ships comply with international regulations and standards, mitigating risks associated with maritime operations. Understanding cargo/market trade flows is also essential, as it aids in determining the most lucrative routes and cargo types to maximise profits.

Finally, the pre-fixture phase concludes with charter party writing, a process that legally binds the vessel owner and the charterer to agreed terms and conditions, effectively fixing the vessel for the voyage.

FIXTURE BREAKDOWN

PRE-FIXTURE	POST-FIXTURE *(voyage in progress)*	POST-VOYAGE
Agreements, demand for cargo, screening vessels, cargo/market flows, charter party writing/T&Cs	Fuel procurement, a voyage that is fuel efficient and economical, weather routing services in use, monitoring for compliance with environmental regulations, port service contracts	Administrative tasks, payments to ports, claims management

POST-FIXTURE
(VOYAGE IN PROGRESS)

Once a voyage is underway, the post-fixture stage kicks in, concentrating on the core commercial operations and voyage optimisation. This includes fuel procurement, where the focus is on acquiring cost-effective and compliant fuel. The quality and supply risks associated with fuel are also addressed to prevent any disruptions during the voyage.

Weather routing and vessel tracking are integral for ensuring the timely and safe arrival of the ship, while emissions monitoring is crucial for compliance with environmental regulations. Port disbursement and port services contracts are also managed during this phase, ensuring that all necessary services are available for the vessel upon arrival and departure from ports.

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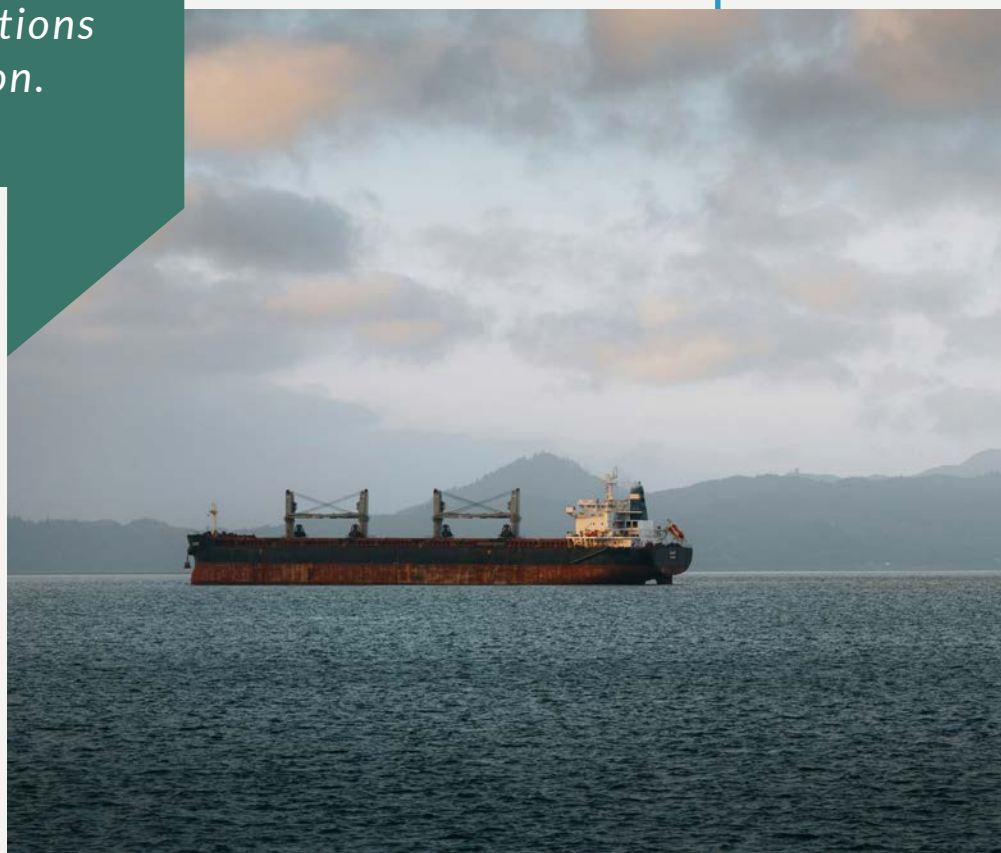
POST-VOYAGE COMPLETION

The post-voyage stage involves handling various administrative and financial tasks. This includes managing performance claims if the voyage did not meet the agreed performance standards or clauses. Port payments and foreign exchange transactions are settled, ensuring all dues are paid and currency exchanges are processed.

Lastly, the management of laytime and claims through a specialised workflow that combines digital tools and claims experts ensures that any disputes or delays during loading and unloading are fairly addressed, closing the loop on the voyage management process.

In summary, commercial voyage management covers an extensive array of activities, starting from the initial planning stages to the concluding settlements after the voyage. Each phase is essential in securing not just profitable voyages but also in the context of an organisation, achieving profitability that surpasses industry benchmarks to remain relevant.



THE BOTTLENECKS OF A TRADITIONAL APPROACH TO COMMERCIAL VOYAGE MANAGEMENT

With a myriad of separate systems and processes at play, planning and executing a commercial voyage is a complex task. The traditional approach to commercial voyage management is often riddled with difficulties and inefficiencies. In most scenarios, it acts as a major weakness in maintaining a tight Profit & Loss (P&L) for the voyage.

This intricate web of complexities arises from the countless disparate processes and systems, critical for both pre-fixture and post-fixture voyage planning and execution. Elements such as port turnarounds, cargo stowage, equipment maintenance, the volatility of bunker prices, and adherence to charter party obligations are just a few of the key considerations that must be meticulously juggled.

This disjointed approach frequently causes teams to work in silos. Often, the business process is outsourced to different service providers, which impedes effective communication and collaboration.

The vast variety of systems involved typically causes individuals and processes to operate in isolation, leading to operational inefficiencies, errors, and adverse impacts such as increased fuel consumption, financial losses, and potential loss of reputation and goodwill for the organisation.

This isolation fosters operational inefficiencies, is prone to errors, and places a significant burden on vessel operators. When challenges arise, making changes becomes costly, time-consuming, and generates unnecessary workloads. The vast variety of systems involved typically causes individuals and processes to operate in isolation, leading to operational inefficiencies, errors, and adverse impacts such as increased fuel consumption, financial losses, and potential loss of reputation and goodwill for the organisation.

THE OPERATOR'S DILEMMA

The below draws attention to some of the main challenges associated with traditional voyage management.

PROCESSES

Multiple processes need managing in a fast-paced environment, but processes are managed in silos, leading to decision-making based on incomplete information.

- Managing process with a lack of standardisation
- Inconsistency across global offices
- Managing port turnarounds and bunker price volatility
- Poor-performing vessels that lead to performance claims

SYSTEMS

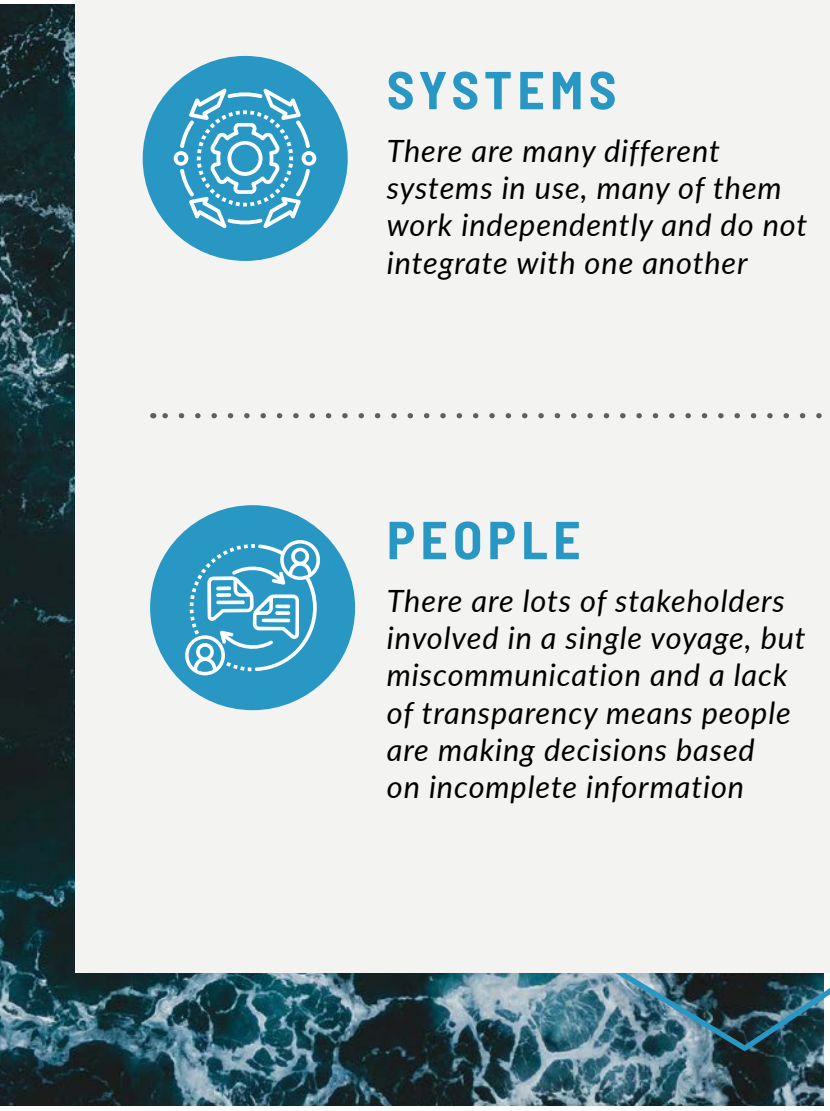
There are many different systems in use, many of them work independently and do not integrate with one another

- Limited access to real-time data and analytics
- Noisy data
- Manual movement of data from one system to another
- Lack of vendor trust

PEOPLE

There are lots of stakeholders involved in a single voyage, but miscommunication and a lack of transparency means people are making decisions based on incomplete information

- Miscommunication
- Lack of visibility among stakeholders
- Decisions being made based on limited information
- High levels of stress in a pressured environment



Typically, traditional approaches to voyage management do not make use of integrated systems that are available today. Access to real-time data and advanced data analytics is often limited. This leads to a reactive rather than proactive decision-making process. This is largely tied to the fact that it's hard to make informed decisions from data when it is locked up in different systems and not readily accessible. Jasneet Manaise, Senior Vice President, Marine Services & Performance Management at Fairfield Chemical Carriers told us, "One of the biggest challenges has always been the aggregation of good quality data to drive decision making and change. You have to make do with what you have but end up making changes or calibrating your decisions along the way." The high level of noise in the data makes it prone to human error.

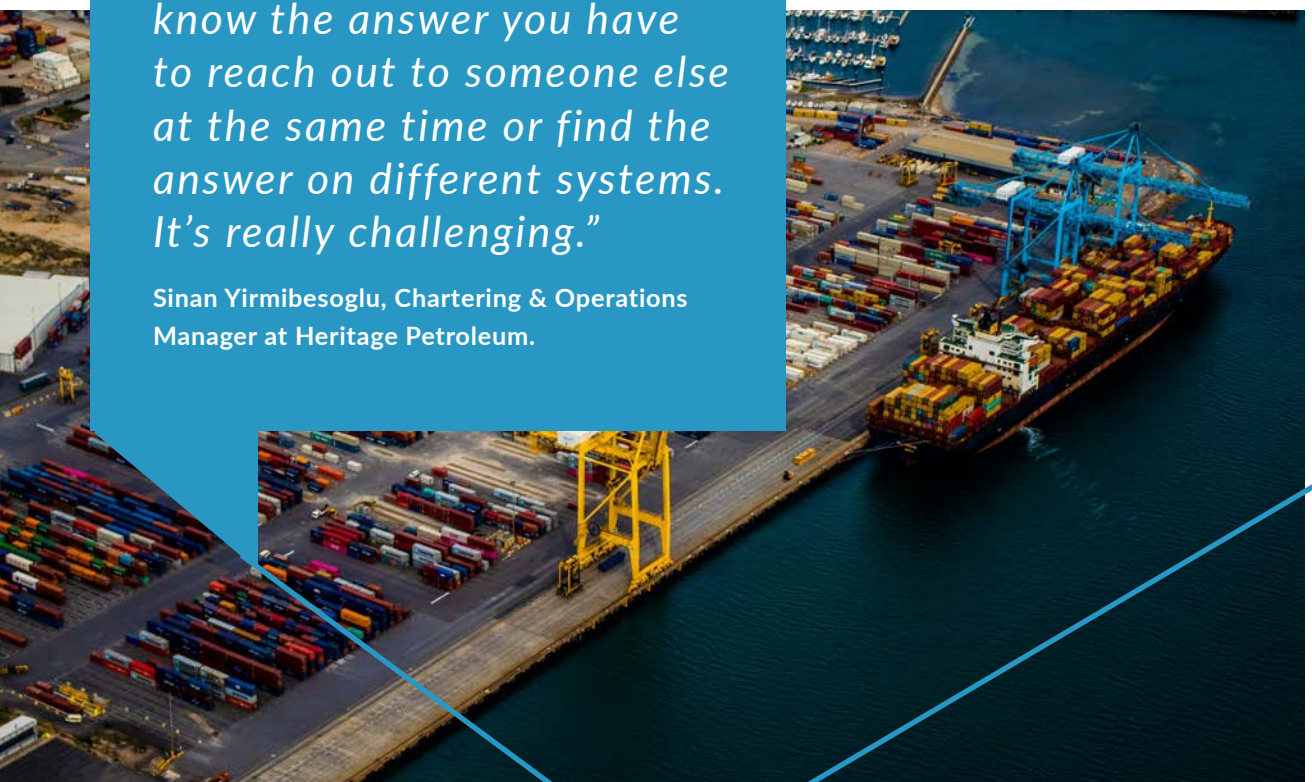
Crucially, this fragmented approach to commercial voyage management means that rather than optimising the entire voyage lifecycle, it only focuses on optimising specific processes or segments individually. This often means that an inefficiency in one part of an organisation is shifted to another part. Failing to identify the impact one decision might have on another aspect of the voyage or the performance of the vessel can lead to unexpected financial loss in the voyage.

Thetius asked a range of shipowners, managers, and charterers about the bottlenecks they face or have faced in the past in voyage management. Many of the answers focussed on the difficulties of managing multiple processes in a fast-paced environment and often using different pieces of software to do it.

A Commercial Operations Manager from a major tanker operator explained to Thetius one of the problems he faced in the past as a result of relying on multiple systems. "It used to take a lot of time to navigate through all these different systems. It was something that was prone to human error and stress, and very time-inefficient.

"Managing chartering and operations is a challenging job. The master might call you up at 3 am and ask a question, and if you don't know the answer you have to reach out to someone else at the same time or find the answer on different systems. It's really challenging."

Sinan Yirmibesoglu, Chartering & Operations Manager at Heritage Petroleum.



This siloed approach to data storage means that it has to be manually moved to share, process, and be analysed by other systems and people to create actionable insights.

He also told us that several of his colleagues working for different organisations have found it challenging to manage their voyages with multiple systems.

“Information ends up being all over the place. When there are so many different websites in use, it's time-consuming to keep logging into all of them just to keep track of what's going on. There have also been cases in the past where in the middle of the night you receive a phone call and you have to search through systems trying to find information for someone. It would have been highly beneficial then to have one centralised system to access all the information we needed."

This siloed approach to data storage means that it has to be manually moved to share, process, and be analysed by other systems and people to create actionable insights. However, this is time-consuming, risky, and prone to human error. Accidental file deletion, difficulties for software to read the data, or the risks of its loss during transmission or processing are exacerbated. A study by Forrester Consulting found that employees in large organisations lose up to 12 hours per week chasing data.[1]

Moreover, this inefficient way of working generates additional stress. People end up undertaking double or triple the amount of work they could do, often inputting the same information into different systems, because at times there is simply no way for it to be transferred automatically between the two.

“Consider a scenario. If you’re using two or three different systems, you have to spend time making double or triple entries or replicating it all on another platform. You end up spending a lot of time, which in today’s climate is money, doing the same thing over and over.”

Indermeet Bedi, Regional Manager of Tanker Operations, Scorpio Group.

1 Forrester Consulting (2022) Software is fracturing your organisation

The bottlenecks of voyage management today can be better understood by diving into the processes, people, and systems.

In the realm of commercial operations, time is of the essence. Decisions based on incomplete or poor-quality information can lead to inefficiencies, ultimately affecting a vessel's profitability. Consider the task of determining the cause behind increased fuel consumption during a voyage. Possible factors include incorrect sailing speed, weather conditions, or fouling on the hull, among others. However, identifying the actual cause becomes challenging if the relevant data is dispersed across different systems or presented in a complex data structure that's difficult to decipher. It's essential to understand the relationships between these potential factors for making optimal routing and speed decisions, which are crucial for reducing fuel consumption and costs.

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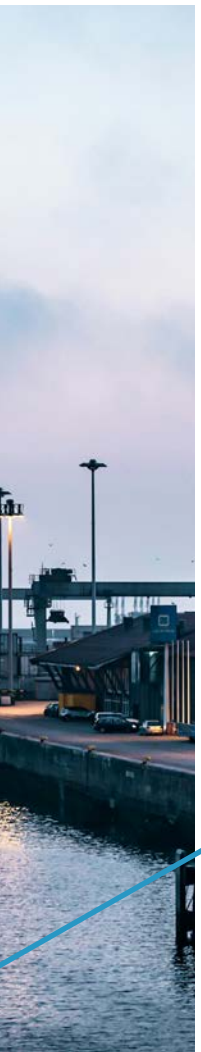


PROCESSES

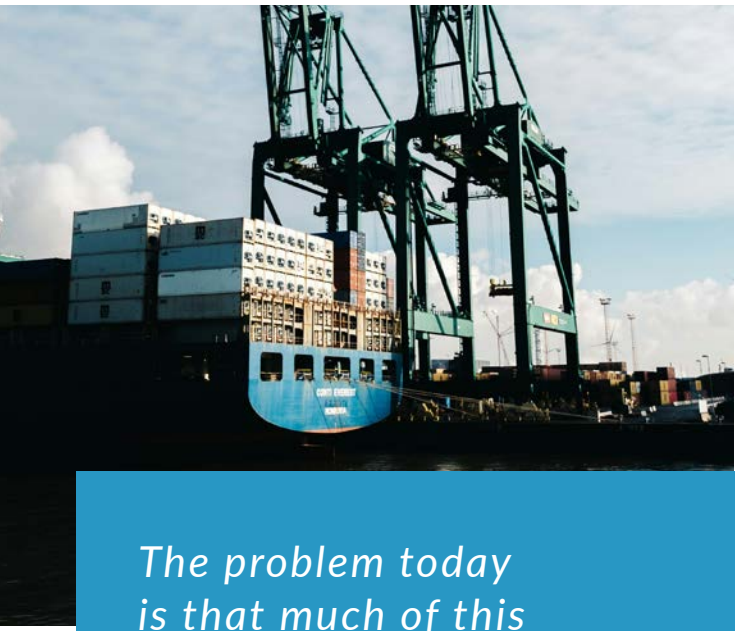
LACK OF STANDARDISATION

The lack of standardisation in documents and data reporting presents a significant bottleneck for ship operators. As one Operations Manager shared with Thetius, "Despite the fact that over 75% of the data shared among various stakeholders—including charterers, commercial operators, owners/technical managers, classification societies, and weather routing companies—is common, typically conveyed through similar reports like noon, arrival, and departure summaries, vessels crew dedicate a considerable amount of time to understanding, extracting, and distributing the same information across different formats. This requirement stems from each stakeholder's unique data reporting needs for their voyage management systems, planned maintenance systems, or to customise reports for regulatory compliance." This inefficiency impacts timeliness and hampers the stakeholders' ability to make informed, timely decisions, further complicating and potentially increasing the cost of data reporting processes.

Recent research by major industry associations has also brought to light the difficulty operators face in selecting digital solutions while there is a lack of standardisation, which is necessary to support data exchange. The survey led by BIMCO found that around 40% of the shipping industry is unaware of the IMO's Maritime Single Window for data exchange.

Moreover, only 36% of port calls today offer fully electronic data exchange.* As a result, BIMCO has submitted a paper calling for the IMO to develop a digitalisation strategy that will address challenges associated with data trust and exchange, and compatibility between shoreside infrastructure and shipboard equipment.[2]

This research has led us to find that the commercial management chain is filled with similar examples of lack of standardisation. This includes disputes arising from ambiguous clauses drafted in charter party terms, or lack of standardisation in SOF format. In turn, this causes delays in capturing laytime and demurrage claims.



The problem today is that much of this information is found in different systems and is not integrated, making analysis and effective decision-making difficult.

Bunkers account for around 50-60% of a ship's total operating cost and therefore represent a significant cost of a voyage.[3]

FUEL MANAGEMENT AND BUNKER PROCUREMENT

One element of voyage management that is highly inefficient due to a fragmented and siloed approach to data is the procurement of bunkers. Bunkers account for around 50-60% of a ship's total operating cost[3] and therefore represent a significant cost of a voyage. There are many factors to consider in making optimal bunkering decisions, including which port to bunker at, the availability of bunker barges at the desired port, whether the specific type of fuel is available, the quality and compatibility of the fuel, fuel cost, and the vessel's fuel consumption. The latter of which may change throughout the voyage based on weather conditions or sailing speed. The problem today is that much of this information is found in different systems and is not integrated, making analysis and effective decision-making difficult.

One Executive of a major ship owner told us that having more clarity and visibility on bunker spend would help enormously from a dollar perspective. "Bunkers are roughly just north of 50% of the total voyage expense. If you can even improve that by 5-10% that's a marked improvement."

2 BIMCO (Apr, 2024) BIMCO submits paper calling for the IMO to develop a digitalisation strategy

3 Tzeu-Chen Han and Chih-Min Wang (Apr, 2021) Shipping bunker cost risk assessment and management during the coronavirus oil shock

CONSEQUENCES OF INEFFICIENT BUNKER PLANNING

Most companies use bunker purchase teams or trading entities when buying bunker fuel. Key factors for consideration include the quality, specification, and price. However, failing to understand externalities with information from agents on weather, port congestion, alternative ports and, at times, malpractices by certain suppliers can lead to significant cost implications.

For example, in February 2024, heavy storms led to two days of delays in refuelling and reloading bunker barges at the terminals at the major bunker hub of Fujairah in the UAE.

In another event, a vessel commercially managed by an undisclosed ship manager had planned to replenish its bunkers at Las Palmas in Spain. Due to price differences in the fuel and some time in hand, plans changed so the vessel could bunker at Skaw in northern Denmark, making a slight deviation, which would save approximately US$ 12,000. However, the vessel encountered bad weather en route and became delayed. In order to meet the laycan, the vessel was instructed to proceed at full speed and consumption shot up to 35-36 MT/day. This meant that the bunkers remaining onboard by the time the vessel reached Skaw was much less than anticipated.

Plans changed again so that the vessel could bunker at Portland, UK. However, due to bad weather, the vessel had to wait for 2 days to bunker, further delaying its ETA to its final destination of Porvoo, Finland.

As the vessel's ETA fell outside the laycan dates, the voyage was cancelled. The vessel had to wait another 1.7 days before the next voyage could be fixed. This wait resulted in a loss of approx. US$ 30,000 based on the hire rates at that time.

Lack of effective bunker planning was cited as the main reason for the voyage to change and the financial loss. There was a lack of consideration for external factors that could affect the voyage, including the weather and information on the next proposed voyage at the planning stage.

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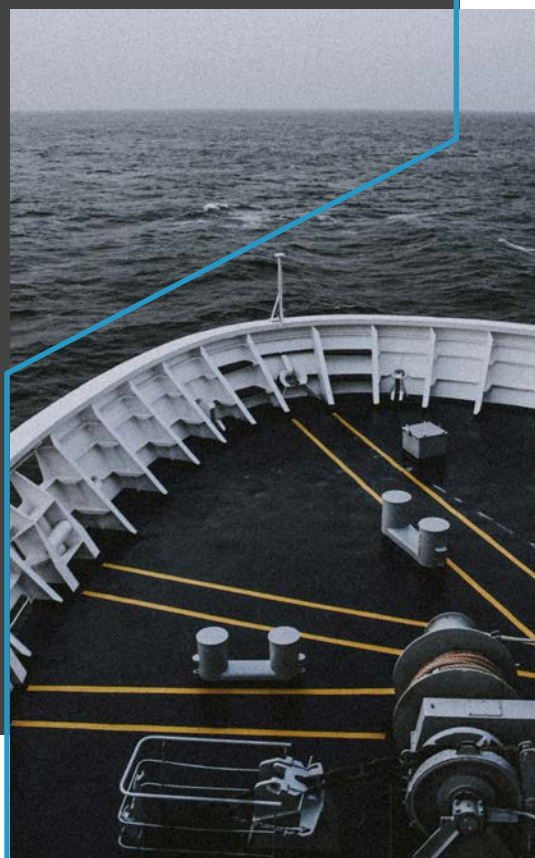
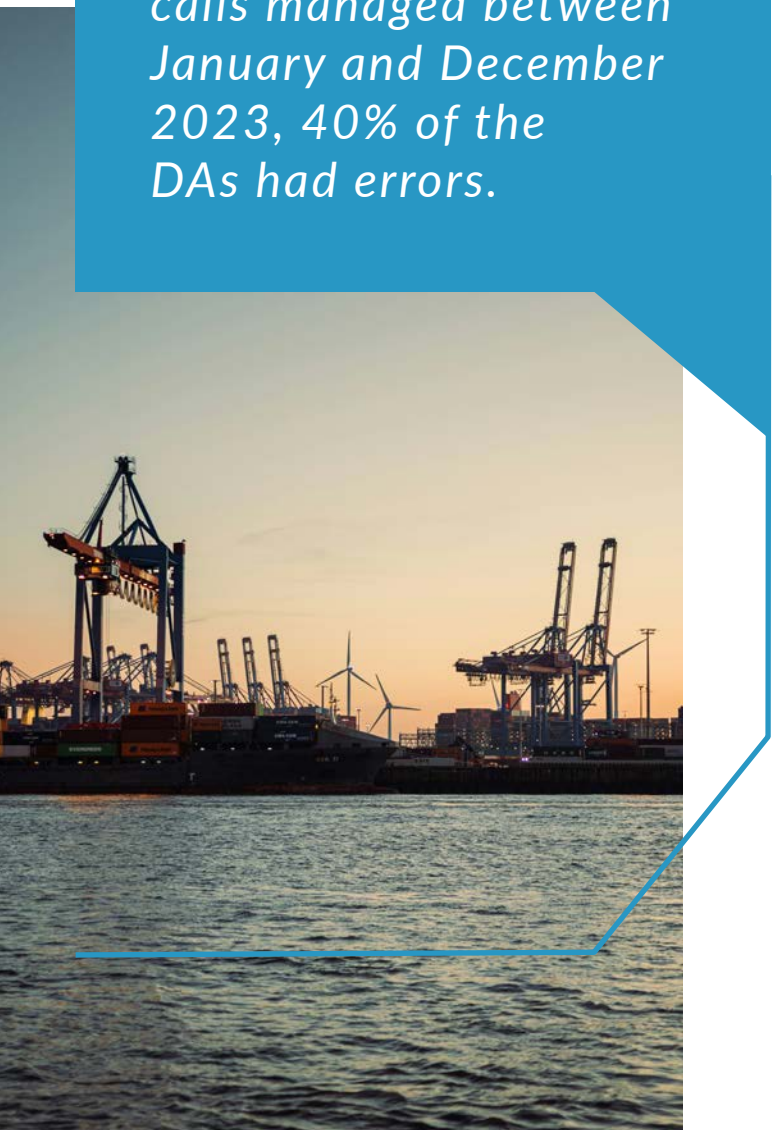
The increase in speed was not anticipated and therefore the additional fuel consumption was neither expected nor planned for, leading to a critical situation in which bunkers were required urgently. There was also reportedly a lack of awareness of the poor weather at Portland and the impact this would have on the vessel's ETA. Getting updates on weather and availability from the Port agents through an integrated system system could have resulted in a better operation.



Additionally, despite the existence of ISO specifications for fuel quality, the reality remains that these standards are not universally accepted by all suppliers, particularly in certain regions. Moreover, certain technical parameters that impede fuel filtration systems are not comprehensively covered under existing ISO testing standards. This gap in standardisation and acceptance exacerbates the complexities of bunker procurement, affecting the decision-making process regarding fuel selection and supplier reliability, ultimately impacting voyage costs and operational integrity.

From over 6,500 port calls managed between January and December 2023, 40% of the DAs had errors.



PORT DISBURSEMENTS

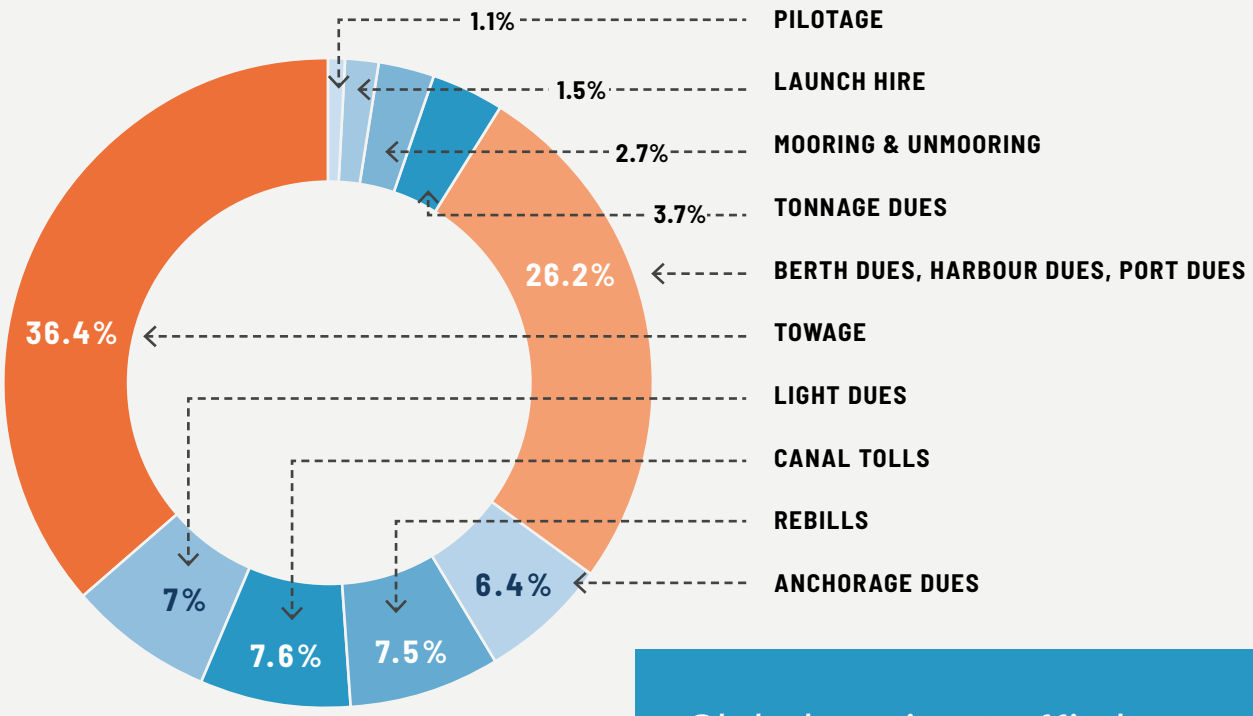
A critical cost of a vessel's voyage is the port disbursement (DA) process. Port disbursements are fees a vessel must pay for using the port's facilities and services during its stay. Charges for entering the port, berthing, and anchoring are made, as well as pilotage, tugboat, agency fees, and many others. Port disbursement fees generally account for around 15-20% of the voyage's cost, although total costs vary depending on the size of the port and the services used.

Our research suggests that there is a disconnect between the shipowner and the agent, increasing the cost of the port disbursement process. In many ports, berth charges are based on the gross tonnage of a vessel. The agent might send a disbursement based on an assumed tonnage, a figure that often goes unverified against the actual tonnage of the vessel. This may lead to higher than necessary disbursement payments.

Another challenge is related to the payment of certain factors, such as garbage landing or the number of tugs used during berthing. These costs may be automatically assumed, but if the vessel doesn't land garbage in a port where it is non-compulsory, for example, the fee should not be levied. It's critical for checks to be conducted and the agents queried on the cost to ensure payments are only made for services that are used or expected to be used. According to Capt. Gaurav Arora, Head of Port DA and Payment Solutions at GeoServe, last year the company managed close to 6,500 port calls and over 40% of the DAs had errors. These errors could have amounted to several million dollars. Manually checking and verifying such costs is a time-consuming task and is prone to confirmation bias.

PORT DISBURSEMENT ERROR CATEGORIES

The Portfolio spread below illustrates the top categories where value leakage was observed.



Source: The data is based on 6,500 port calls recorded between January and December 2023 by GeoServe.

INEFFICIENT VOYAGE PLANNING

Finding the most efficient route that balances fuel consumption, weather conditions, safe distances when passing piracy impacted regions, and port congestion risks is a complex task.

Global marine traffic has increased with container ships spending 13.7% longer in port.[4] It happens due to a variety of reasons, including increased cargo volumes, limited berthing availability, inefficient port operations, or labour shortages. Congestion leads to longer waiting times for vessels to berth, which increases fuel costs, requires vessels to adjust their schedules, and can delay the entire supply chain.

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4 BigOceanData (Jan, 2023) Global marine traffic has increased – but by how much?

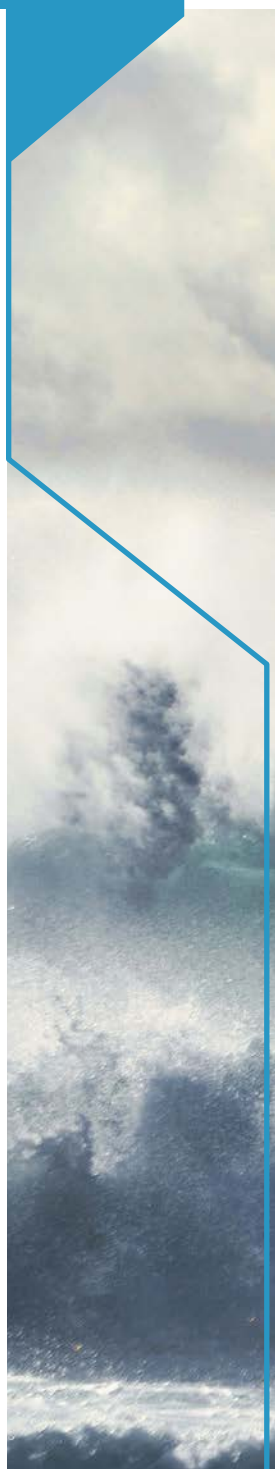
In the tramp trade, this often leads to a sail-fast-then-wait approach, a concept known all too well in commercial shipping operations. Due to contractual obligations of cargo delivery days, ships are required to arrive in port to meet the terms of the charter party and often end up ramping up their speed to ensure they arrive in port in plenty of time. Once the vessel arrives, it finds a berth isn't yet available and anchors just outside the port to commence its laytime. Additional fuel is burned whilst at anchor, increasing both financial costs and emissions released by the vessel. This ultimately results in a much more inefficient voyage than it could have been, had the vessel maintained a slower sailing speed built around berth availability, improved communication, and balancing the contractual obligations between agents, shippers/receivers, owners, and charterers involved.

Traditional weather routing practices often focus on conventional models, neglecting to integrate critical real-time market data such as fuel costs, hire rates, and vessel-specific performance metrics like fuel curves at different drafts and incorporating trim optimisation.

Any savings achieved during the sailing time, for instance by proactively monitoring fuel consumption, are then offset once the vessel arrives in port and the consumption increases due to excessive machinery idle loads.

Traditional weather routing practices often focus on conventional models, neglecting to integrate critical real-time market data such as fuel costs, hire rates, and vessel-specific performance metrics like fuel curves at different drafts and incorporating trim optimisation. This traditional approach may limit the ability to select the most economically and operationally optimal routes, highlighting a preference for established methods over incorporating broader, real-time economic and performance considerations into routing decisions. Furthermore, the inability to accurately forecast and navigate around adverse weather conditions by seasoned meteorologists can potentially endanger the vessel and crew.

Another factor overlooked in traditional approaches is the port performance of a vessel. Attention is focused on the performance of the vessel while at sea, but once in port, this tends to be inadvertently ignored. This means that any savings achieved during the sailing time, for instance by proactively monitoring fuel consumption, are then offset once the vessel arrives in port and the consumption increases due to excessive machinery idle loads.



CASE STUDY

THE CONTRACTUAL IMPLICATIONS OF DEFINING, OR NOT DEFINING, GOOD WEATHER

Today, many shipping companies use a software platform or a service provider that provides a report at the end of the voyage. However, often the software is not integrated with a robust operations and claims team, which leads to a lack of clarity and transparency on the end result of the voyage.

In 2023, the Standard Club documented a case where ship owners filed a claim regarding unlawful reductions in payments by the charterers, citing a purported violation of the agreed-upon speed and performance standards in the charter party.[5] The charterers denied liability for any unlawful deductions.

The dispute over the balance was referred to as arbitration under the LMAA Small Claims Procedure.

The charter party stated that a claim for underperformance could only be made for days when the vessel experienced winds of up to Beaufort force 4 and/or Douglas Sea State 3 (with a maximum combined significant wave height of 1.25 metres), without any opposing currents or swells. Speed improvements resulting from favourable currents would not result in deductions.

Often the software is not integrated with a robust operations and claims team, which leads to a lack of clarity and transparency on the end result of the voyage.

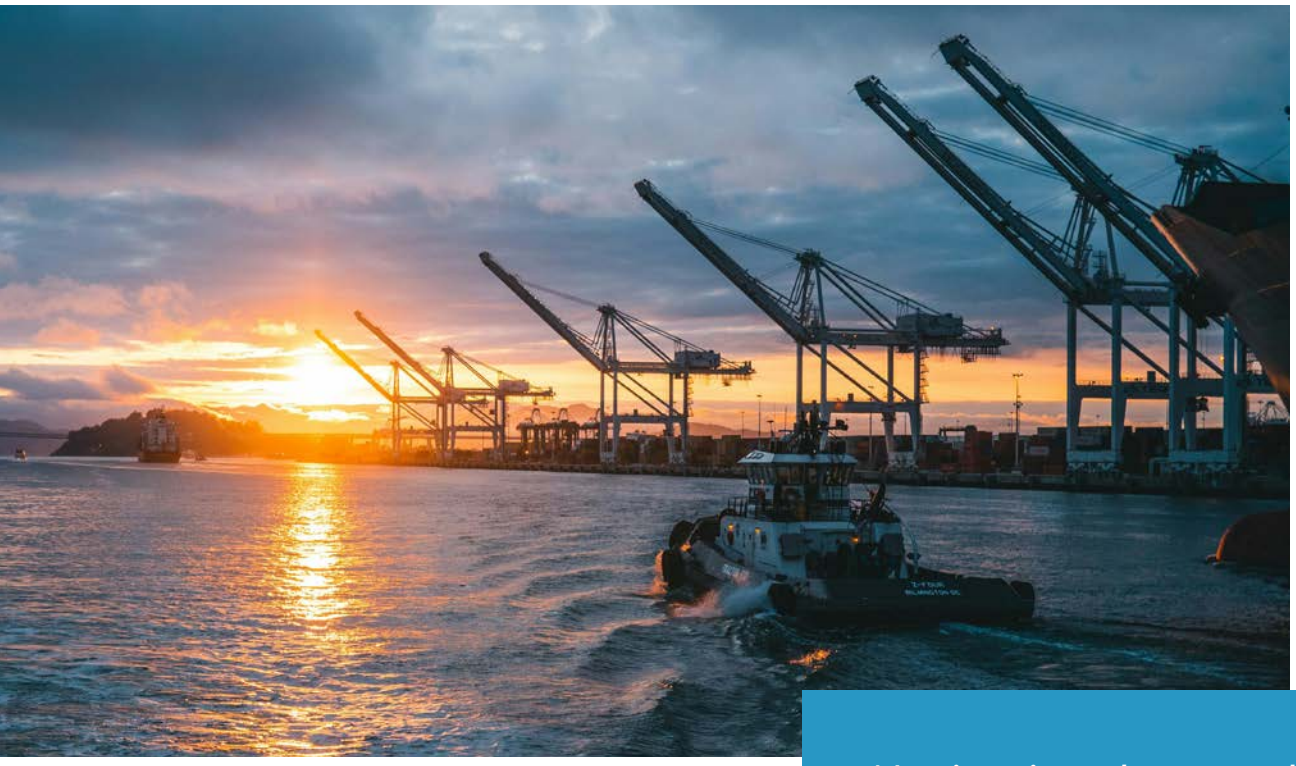
During the tribunal, it was found that the parties had agreed that no adverse current or swell were benchmarking conditions. Therefore, any periods in which adverse current or swell was encountered would be excluded for performance assessment purposes.

Factors affecting the vessel's performance were taken from both the vessel's logbook and the final report of the weather routing service. While the claim was based on reliable data, it was not in compliance with the agreed benchmarking conditions. No reference to swell was made. This meant it was non-contractual and so could not be used to support the charterer's underperformance claim against the owners.

This particular incident highlights the importance of carefully analysing the contractual agreements pre-fixture and ensuring that the weather routing report is prepared in compliance with the contractual provisions.[6]

5 Standard Club (Feb, 2023) Case law: London arbitration 32/22

6 Lester Aldridge (Mar, 2023) Vessel performance & bad weather



REGULATORY COMPLIANCE

Navigating the complex and often-changing landscape of international, regional, and local maritime regulations requires constant vigilance. Measures such as the EU MRV, IMO DCS, CII, and EEXI/EEDI affect shipping companies. Non-compliance can lead to fines, detentions, and reputational damage. These regulations introduce tasks and responsibilities, complicated by specific rules like the EU ETS. The evolving landscape often leads to adopting disparate tools or processes for new requirements, shifting the burden onto vessels for additional reporting. Participation in voluntary emission reporting forums adds complexity due to varying emissions metrics compared to those adopted by regulations.

Navigating the complex and often-changing landscape of international, regional, and local maritime regulations requires constant vigilance.

The variance in international, regional, national, and voluntary regulatory frameworks complicates processes and data management, as stakeholders attempt to interpret the same data through different lenses, highlighting the complexity and administrative challenge in commercial voyage management.

Additionally, managing these requirements, reducing emissions, and maintaining profitability intensify the challenge.

PEOPLE

INEFFICIENT COMMUNICATION

A common theme emerged during our conversations with industry members. Communicating with a multitude of people to manage a voyage is one of the biggest frustrations operational managers face today. Not only does it take time to liaise with people via email, which is the traditional approach to voyage management, but it also lends itself to miscommunication and error.

"You're trying to communicate daily with people to get them to understand what you are trying to do and what needs to be done to perform a safe and efficient voyage. Then you're trying to deal with various vendors, port agents, bunker suppliers," a Senior Operations Manager of a leading vessel operator told us when talking about the major challenges he faced in the past." We have got to make sure the vessel is commercially performing as expected. It doesn't end up excessively delayed for bunkers or acquiring additional charges in port. You need to balance all of that and then you have the fragmentation where different people are handling different aspects of the voyage. You have a port disbursement desk that is probably handling agency appointments and a bunker desk team focussing on fuel procurement, and there's no alignment between them. You have to go back and forth via email and if a person on the other end doesn't understand, you have to just keep on exchanging emails. It can take so much time to resolve a simple issue."

The quality of human capital is critical. You might have the software, but if you don't have the people, the value you will create is limited.

SHORTAGE OF QUALITY TALENT

One of the significant bottlenecks in commercial voyage management is the acute shortage of experienced personnel. This is especially the case in key shipping hubs like Copenhagen, Singapore, London, and Houston. This challenge is compounded by the decreasing interest among the younger generation in pursuing seafaring as a career. The dwindling talent pool can cause companies massive headaches in trying to secure the same quality of talent they have had in the past.

Additionally, new graduates from non-shipping backgrounds face a steep learning curve, struggling to grasp the complex jargon and operational nuances of the industry. This lack of experienced individuals can slow down operations and increase the reliance on attracting talent from abroad, exacerbating the problem.

According to Mike Bateman, Freight Trader at ExxonMobil, the quality of human capital is critical. You might have the software, but if you don't have the people, the value you will create is limited. "High quality people will cost you, but if you don't have them, you will lose customers," he warned.

It is essential to consider not just the scarcity of experienced personnel but also the challenges that come with the near 24/7 on-call nature of roles in this sector. For instance, a Senior Commercial Director of a major shipping company[7] said, "In today's commercial voyage management, the ability to attract and retain quality talent goes beyond traditional incentives. We're in a nearly 24-hour on-call profile, which demands not just expertise but also a significant commitment to work-life balance. Our new graduates, especially those from non-shipping backgrounds, face a steep learning curve, grappling with our sector's complex terminologies and operational subtleties. Moreover, the necessity for timely and sensitive decision-making cannot be understated; it's akin to navigating through a storm with precision and confidence."

This insight underscores the critical need for skilled operators who can navigate the complex commercial landscape efficiently.

"In today's commercial voyage management, the ability to attract and retain quality talent goes beyond traditional incentives. We're in a nearly 24-hour on-call profile, which demands not just expertise but also a significant commitment to work-life balance."

A Senior Commerical Director of a major shipping company

SYSTEMS

THE MISCONCEPTIONS OF VOYAGE MANAGEMENT SYSTEMS AS STANDALONE SOLUTIONS

Despite the central role that Voyage Management Systems (VMS) play in streamlining fixture workflows and monitoring voyage Profit & Loss (P&L), some industry players view them as singular, comprehensive solutions. This perception overlooks the crucial workflows not covered by VMS.

One industry leader we spoke with noted,[8] "Depending on a company's specific needs, there is a wide range of VMS tools available. While some are market leaders with high setup and subscription costs, an improper selection based on these needs can lead to even higher switching costs. Despite over 75% of organisations having a VMS, their struggle today lies in juggling a variety of different tools and subscriptions in addition to the VMS itself."

Another chemical operator we spoke with said that he was keen to ensure his staff weren't having to look at multiple systems to find out the answer to a single question. "If you can create some kind of synergy between systems or have them all under one platform where they can get 99% of their work done, that's what we really want."

7 Name anonymised for privacy

8 Name anonymised for privacy

The essence of integrating multiple systems lies not just in harnessing diverse functionalities but in ensuring these systems 'talk' to each other efficiently.

This situation underscores a fragmented approach that leads to inefficiencies and an increased risk of miscommunication. Operators often find themselves managing multiple software services for bunker procurement, vessel routing, port disbursement, laytime and emissions tracking. This diversity in tools dilutes the potential efficiency gains from digitalisation. Moreover, each of these systems might rely on its own set of master data, complicating data integration and consistency across platforms.

The essence of integrating multiple systems lies not just in harnessing diverse functionalities but in ensuring these systems 'talk' to each other efficiently. When master data—such as vessel specifications, port or cargo details, vendor details—varies between systems, reconciling this information becomes a challenge. It requires rigorous data management protocols and, potentially, middleware solutions to facilitate seamless data exchange and synchronisation between systems.

VENDOR TRUST

Another theme that emerged from the interview research was that operational managers today often lack trust in certain vendors or agents. Often, due to the obligations outlined in the charter party, the ship operator may not have the freedom to choose their preferred vendor or agents. There are instances where the vessel does not call at a particular trade region or port regularly, leaving the team without enough historical data to assess an agent or vendor effectively. Additionally, if the interests of the agent or vendor are not aligned, especially when they are appointed based on the instructions of another stakeholder, this misalignment can result in unforeseen outcomes.

This reduces the quality of information provided and makes it even more challenging to make decisions that optimise commercial performance. One operational manager told us that he'd previously dealt with very poor service from a vendor, which meant the information he was being provided with wasn't adding value. It required even more time to go back and forth with the vendor to secure the information he needed. "The impact of this varies depending on the service that you're using, but it could range anywhere from a few thousand dollars to a hundred thousand dollars. If it causes a delay to the operation of the ship, the impact is huge," he told us. He said this experience led him to realise that you really need a marketplace of "rated people and trusted vendors."

UNTANGLING CHAOS: WHY AN END-TO-END APPROACH TO VOYAGE MANAGEMENT IS THE KEY

As this report has acknowledged, commercial voyage management is a complicated and risky operation. Stakeholders are under pressure to make multiple decisions promptly to ensure efficient, safe, secure, and compliant vessel operations.

While a traditional voyage management approach might look at these aspects in isolation, the end-to-end approach considers the entire voyage as a holistic, continuous process.

There are many processes, systems, and people involved in a single voyage. While a traditional voyage management approach might look at these aspects in isolation, the end-to-end approach considers the entire voyage as a holistic, continuous process. It streamlines, optimises, synchronises data and manages workflows from pre-fixture to post-voyage analysis.

Jasneet Manaise, Senior Vice President. Marine Services & Performance Management at Fairfield Chemical Carriers told us, “It’s my vision to have all the information that is needed to maximise revenue in one place. At the same time, you should have easy access to information that helps you to minimise or manage the costs of the voyage. When you start to look at the voyage P&L, everything that hits it should be in one spot for quick and thoughtful decision making.”

By adopting data driven strategies[9] that foster data cohesion and system interoperability, stakeholders can achieve a more transparent, streamlined, and optimised management process across the voyage lifecycle.

Ultimately, this brings benefits to systems and processes and facilitates more accurate and efficient decision-making by stakeholders.

An end-to-end voyage management approach provides a centralised repository for data. While it might not be possible to use a single system for all aspects of voyage management, it is highly important that data from various software and systems flows seamlessly between them.

9 McKinsey (Jan, 2022) The data-driven enterprise of 2025

PROCESSES

An end-to-end approach to voyage management optimises a range of processes that occur during a voyage. Below, we outline some of the key ones and discuss how an end-to-end approach can help to reduce inefficiencies and errors, leading to a safer and more profitable voyage.

PRE-FIXTURE PLANNING

Using market and historical performance data, integrated systems for voyage management can identify chartering opportunities and risks. This helps in the pre-fixture stage to determine the best ship to use for the cargo being transported.

By also integrating historical data on ship performance, evidence-based benchmarks on vessel speed and fuel consumption, amongst others, can be seen. This helps to determine the likely performance of a vessel based on specific operating conditions during specific voyages. This also allows for voyage costs to be estimated, taking into account the performance of the vessel as well as port costs and other expenses. Ultimately, this provides a more well-rounded view of how well a vessel has performed and therefore is likely to perform for the upcoming voyage.

VOYAGE OPTIMISATION

An end-to-end approach to voyage optimisation significantly surpasses traditional methods by integrating advanced algorithms and real-time data, encompassing onboard IOT sensors, weather, sea conditions, navigation lanes, hazards, vessel-specific speed consumption curves, engine limitations, charter party speed limits and port congestion. During the voyage, real-time data is continuously fed into and across the integrated systems to assess and determine whether any route deviations need to be made. Vessel performance systems will simulate if and how fuel consumption will be affected by any route changes. Unlike just a software tool, this needs to be continuously evaluated by a specialist to ensure all the stakeholders are well informed.

Voyage optimisation solutions such as those offered by GeoServe under its GeoPerform platform provide these human interventions with a specialist, popularly coined as the “Shadow Operator.”

This is particularly important when it comes to costly charter party claims and disputes. A Captain may choose to modify the route based on weather recommendations, but if this route takes the vessel far from the optimal route, the charterer may lose money. It is therefore necessary for all stakeholders to have access to the same information, showing where and why deviations from the planned route happened.

This comprehensive strategy not only aims for cost efficiency and safety but also ensures all stakeholders are informed about route adjustments, thereby minimising disputes over charter party agreements.

During the voyage, real-time data is continuously fed into and across the integrated systems to assess and determine whether any route deviations need to be made.

Unlike traditional practices, which rely on conventional models and overlook real-time economic and performance data, the end-to-end approach facilitates optimal route selection, enhancing safety and operational efficiency

According to a Freight Trader from ExxonMobil, the company has saved up to US $400 per day per noon report by rolling out vessel performance software from GeoServe. The software enables Exxon to gain greater visibility on the operation of the ship and decisions made by the Captain based on a 14-point analysis by GeoServe. After the data has been analysed, GeoServe recommends what can be done to save more fuel in the coming voyages.

By providing total transparency around weather conditions, route modifications, and decision-making, an end-to-end voyage approach to voyage management can in some cases help to avoid such disputes.

DEVIATION DILEMMA

In a recent incident, a vessel's Master chose to complete a longer route from the intended plan due to hurricane season. However, no poor weather warnings were reported during that time. The charterers deducted fuel and hire costs as the owners failed to submit evidence to prove that the weather was severe enough to warrant a deviation for safety reasons. In this instance, there was a lack of clarity around the weather conditions and whether the deviation was necessary, which led to huge complexity in calculating the financial loss due to the deviation. In the end, the case ended up at an arbitration tribunal.[10]

By providing total transparency around weather conditions, route modifications, and decision-making, an end-to-end voyage approach to voyage management can in some cases help to avoid such disputes.

BUNKERING

Procuring bunkers and managing a vessel's refuelling is one of the most complex processes within pre-voyage planning and voyage execution. As the shipping industry is increasingly turning to new and more expensive fuels, optimising this process is necessary to improve the profitability of a voyage.

The end-to-end approach considers the impact of operational planning and performance-based changes on the total cost of bunkering, rather than just the cost of bunkers in isolation. Aman Talwar, Head of Bunkers at GeoServe, puts it succinctly: "In the face of evolving bunker landscape, our priority has shifted towards optimising not just the cost but the very essence of our customers' bunker planning strategy. It's about comprehensively addressing 'WHERE to buy WHAT, and HOW much to buy?'" During the voyage planning phase, the most appropriate bunkering locations will be identified based on expected fuel remaining onboard, availability of tanks, tank fill limits, fuel commingling options (if possible) and fuel quality specification. However, as the voyage progresses, data on the performance of the vessel and the voyage is combined with real-time data on the cost and availability of bunker grades, market trends, bunker supplier history, any recent quality issues reported and port congestion, identifying factors that may affect the turnaround time, cost, or ability of the vessel to bunker at the intended location.

10 Charter Party Disputes (Sep, 2022) Ship deviation- shorter vs longer route

The data may show that the cost of bunkers is competitive, availability is high, and there is little to no congestion, enabling the vessel to get to its berth at the agreed time without any route deviation. In another scenario, the data could show that bunker prices have risen and it may make sense to secure bunkers at another destination. By integrating all of this information, a decision can be made on whether to continue along the intended route or deviate. If the vessel is under voyage charter, it must ensure that a change in route is permitted under the charter party terms.

39% of the deliveries from 2019 to 2022 had bunker quantity discrepancies. Although Mass flow metres (MFM) was a welcome development, the industry still suffers from unscrupulous suppliers.[11]

We spoke with one tanker operator who explained how having access to data that highlights inefficiencies in bunkering and shows alternative options for the voyage that the vessel is on is highly valuable. “We have done the majority of our bunkering in major bunkering hubs, but we have also taken bunkers in ports not commonly used for bunkering. The price difference between the major hubs and other ports can be quite high. Sometimes you can’t avoid it and you have to bunker where you can but there are other instances where you can avoid bunkering at that specific location. Having access to information that tells us first of all if it’s feasible to avoid bunkering at that port and how much money or time we would save by going elsewhere is really valuable for us. It means we can look at our procedures and processes and improve upon that.”

According to Fuel Trust, 39% of the deliveries from 2019 to 2022 had bunker quantity discrepancies[11]. Although Mass flow metres (MFM) was a welcome development, the industry still suffers from unscrupulous suppliers[12]. Bunker quality issues are another common issue faced by ship operators. Maintaining and sharing data on unscrupulous suppliers across networks and integrating this into bunker procurement workflows can significantly enhance transparency and efficiency, reducing the risk of disputes. Solutions such as those offered by GeoServe under its GeoStem offering centralises all this information, creating voyage visibility for the bunker desk team to ensure smooth negotiations and decision-making on its fuel procurement services.

11 Ship & Bunker (Jul, 2023) Quantity discrepancies seen in 39% of bunker deliveries

12 North Standard (Mar, 2017) Bunker quantity disputes - mass flow metres

An end-to-end voyage management approach considers vessel performance in its entirety, examining how specific characteristics of the ship, such as its laden draft status, engine load, or hull fouling, influence the overall voyage performance.

VESSEL PERFORMANCE AND CLAIMS MANAGEMENT

The traditional approach focuses solely on the contractual obligations of speed and consumption warranties mentioned in the performance clause of the charter party. These warranties are governed by specific conditions, including speed, weather, current, and restricted areas. However, this assessment is carried out at the end of the charter term, often too late to discover that the vessel was underperforming.

In contrast, an end-to-end voyage management approach considers vessel performance in its entirety, examining how specific characteristics of the ship, such as its laden draft status, engine load, or hull fouling, influence the overall voyage performance. This comprehensive analysis can provide real-time insights into whether the vessel performed above or below its technical capabilities.

These insights enable a proactive approach, allowing stakeholders to identify the root causes of underperformance early and take corrective actions, rather than getting into a dispute at the end of the charter period.

According to Steamship Mutual, performance issues and claims, particularly related to hull fouling, are common issues between owners and charterers and a frequent source of deductions from hire.[13] In one case, a vessel fixed under two separate but consecutive charters experienced hull and propeller fouling and began underperforming during the first charter in terms of speed and fuel consumption. Between the charters, no underwater inspection or cleaning was performed so the vessel continued to underperform in the second charter.

The charterers claimed damages in respect of a breach by owners of their performance warranty, but the first claim failed. This was due to the fact that the vessel had stayed in port for more than 28 days and, under the clause, owners would not be responsible for a reduction in the vessel's speed or increase in fuel consumption. However, in the second claim, the owners argued that as the second charter was taken in direct continuation of the first, the charterers did not allow the hull to be cleaned following the long stay in Indonesia. This means they did little to stop the vessel from underperforming.[14]

In both cases, the charterer and owner could benefit from information on the impact hull fouling would have on the vessel's performance, giving them the opportunity to implement cleaning to mitigate the dispute.

13 Steamship Mutual (Jun, 2015) A year of performance claims - a reminder to owners to check their performance warranties

14 Steamship Mutual (Jun, 2015) A year of performance claims - a reminder to owners to check their performance warranties

Integrating onboard sensor data, event logs, and advanced analytics with cutting-edge digital tools allows informed decisions and timely adjustments in fuel optimisation to be made. This integration facilitates early analysis of the vessel's contractual performance and quicker assessment of performance-related claims. The efficiency of this process is further enhanced by accessing comprehensive voyage information, which simplifies the understanding of the basis for claims. Armed with detailed data, stakeholders can effectively defend against claims or proactively implement changes to prevent future issues.

Anupam Moondra, Head of Performance & Optimisation at GeoServe, captures this shift, stating, "The adoption of digital solutions in the Vessel Performance segment is not just about enhancing operational efficiency; it's about fundamentally transforming how we approach performance management and claim resolution. By leveraging real-time sensor data with shipboard events, on site weather and predictive analytics, we can build transparency between counterparties, optimise vessel performance, reduce emissions and minimise the possibility of contentious TC performance claims."

Mike Bateman, Freight Trader at ExxonMobil explained how digitising the claims process with GeoServe delivered huge benefits. "Normally we'd need a lot of data cleansing when we're making a claim. We need a lot of time, and we're always playing catch-up with our performance claims," he told us. For the corporation giant, semi-automating the claims aspect of voyage management has reduced the amount of time they spend cleansing data, making performance claims a much easier process.

By collating information about the voyage and providing it in one single source of truth, the agent and ship owner can access the same information regarding the services the vessel used in port.

PORT DISBURSEMENTS

The accuracy and efficiency of port disbursement can be improved with an end-to-end approach. By collating information about the voyage and providing it in one single source of truth, the agent and ship owner can access the same information regarding the services the vessel used in port. By providing this visibility, it becomes clearer to see where a vessel may have been charged for services it didn't use.

End-to-end voyage management also means that real-time data on the status of the voyage (changes to its arrival or laytime for example) is integrated with port disbursement calculations, enabling the ship owner to preempt additional services that the vessel may require in port or one that it no longer needs. This flow of information also makes it easier to check vessel requirements against local regulations to ascertain whether specific services are required.

Port and worldscale rebills in port disbursement systems is another area where an end-to-end approach helps the claims monitoring team to monitor all the outstanding claims for the voyage. Indermeet Bedi, Regional General Manager of Tanker Operations at Scorpio Group, told us that he's seen a significant improvement in managing the claims process as a direct result of having an end-to-end approach to voyage management. "By sharing the same platform, everyone involved in the voyage, including the claims team, is aware of what has happened if a claim is filed."

Additionally, in the current geopolitical landscape, understanding and managing sanctions and compliance risks becomes imperative in the agent and vendor selection process. Effective management of these risks is crucial to avoid significant legal penalties, financial losses, and reputational damage. Beyond regular screenings, checks should follow a 'stage-gate' approach, with compliance verifications occurring at the time of appointment, prior to the ship's arrival, and before executing any payments. By integrating compliance data into the selection process, as provided by solutions like GeoConnect, companies can ensure their operations align with international legal standards and avoid engaging with sanctioned or non-compliant parties, thereby safeguarding their voyages from potential legal and financial pitfalls.

Adopting an end-to-end approach to manage laytime and demurrage claims presents a classic case where such a strategy is particularly beneficial, as it provides the laytime analyst with a comprehensive view of the voyage's events and their impact on claim amounts.

LAYTIME & DEMURRAGE

Adopting an end-to-end approach to manage laytime and demurrage claims presents a classic case where such a strategy is particularly beneficial, as it provides the laytime analyst with a comprehensive view of the voyage's events and their impact on claim amounts. Laytime Solutions like those provided by GeoServe were recently adopted by a reputed Chemical carrier fleet[15] to streamline their process. By integrating VMS workflows, digitising cargo document repositories, and enhancing the calculation and communication processes by experienced laytime analysts, these solutions greatly improve productivity. They allow vessel operators to concentrate on core operations activities, reduce the time dedicated to handling claims, and expedite resolutions, thus positively impacting cash flows for shipping companies. Leveraging comprehensive data analysis, such solutions transform the traditionally labour-intensive task of managing laytime and demurrage claims into an efficient and precise business process.

15 Name anonymised for privacy

SYSTEMS

While data silos can be thought of as isolated repositories of information, disparate systems within an organisation are more like distinct dialects not universally understood by all. These encompass various IT systems, tools, and software which, though operational on their own, often fail to communicate or integrate smoothly with one another. In most cases, going beyond two or three systems can actually have a negative effect on the end user and dilute the advantages of a cohesive data ecosystem.

Indermeet Bedi, Regional Manager of Tanker Operations at Scorpio Group told us that a single platform approach is critical to reduce some of these frustrations. “What you want is a one-stop-shop. You want data that can flow in and out and you want to know that any place you want to get data from or to, you can. The interface can allow you to generate reports from any device. That should be the ultimate goal.”

The utilisation of dashboards to unify data across platforms plays a pivotal role in enhancing the end-to-end voyage management approach. Dashboard Solutions such as those offered by GeoNext, consolidate data from diverse systems involved in pre-fixture, post-fixture voyage planning, execution, and analysis, enabling them to work in harmony. By aggregating and displaying information in a single, user-friendly interface, dashboards facilitate seamless sharing of data and workflows among different components of the voyage.

An end-to-end and centralised approach makes it faster and less stressful for relevant stakeholders to access the voyage and vessel information they need, reducing frustration felt by many when needing to wait for information or bypass multiple colleagues to secure access to it.

This integration ensures that all systems communicate effectively, providing operators with a comprehensive overview of the voyage. Consequently, operators are equipped with the insights needed to make informed decisions swiftly, improving operational efficiency and strategic planning.

End-to-end voyage management also allows for standardisation across global offices. For example, Standard Operating Procedures, critical workflows and repetitive tasks are consolidated across global offices on a unified platform such as GeoNext's Ops Wiki. Put simply, an end-to-end and centralised approach makes it faster and less stressful for relevant stakeholders to access the voyage and vessel information they need, reducing frustration felt by many when needing to wait for information or bypass multiple colleagues to secure access to it.

PEOPLE

With a changing workforce and the constant demands of operating a fleet, ship owners and operators are facing more challenges than ever in planning and executing successful voyages. An end-to-end approach to voyage management not only improves the processes of a voyage and enhances system performance, but it also changes the human experience.

One aspect we drew upon earlier is the shortage of quality talent in key hubs. Alok Srivastava, Head of Commercial Shipping at GeoServe explained, “Operation teams of organisations need to work in a highly aligned, loosely coupled format. Each operator needs to make time-sensitive decisions with a good understanding of the situation. Getting experienced talent like a Master Mariner or Chief Officer who has sailed for a few years adds so much value to the operations setup. Apart from quickly understanding the situation the vessel is facing, they are able to complement the Vessel Master with their key understanding of the vessel’s capability, cargo sequences, fuel changeovers, machinery problems, etc. They act as your first line of defence.”

The advent of new age satellite offices, accelerated during the COVID-19 pandemic, has revolutionised this perspective by demonstrating the viability and effectiveness of remote teams. Many new setups struggle to attach talent or existing setups may have a seasonal demand for voyages due to their trade patterns. Solutions such as GeoVoy offered by GeoServe offer an end-to-end Commercial Voyage Management as a service (CVMaaS). for its customers, addressing the very nature of these bottlenecks. Alok further adds, “Fostering an environment that values continuous learning, supports work-life balance, equips our customers with plug and play teams and allows them to focus on their core commercial activities. Such an end-to-end approach not only enhances operational efficiency but also serves as a critical strategy in solving for the bottlenecks in traditional approaches.”

The shift towards remote office setups and the implementation of digital collaboration tools such as reMark and Sedna for email, GeoNext for Unified Business Intelligence, have facilitated smoother and more efficient communication channels. This transition not only addresses the challenge of inefficient communication but also opens up avenues to access quality talent globally. By leveraging digital collaboration tools and satellite offices, companies are no longer restricted to talent pools in traditional shipping hubs but can tap into global talent. This access to a more diverse talent pool allows for the assembly of specialised teams that can work cohesively, regardless of their physical location, enhancing the organisation’s operational efficiency and innovation capacity.

This new paradigm enables companies to navigate the complexities of commercial voyage management more effectively. By breaking down geographical barriers and utilising digital tools for seamless communication, companies can foster a more agile and responsive organisational culture. This approach not only mitigates the traditional bottlenecks associated with people management in commercial voyage operations but also aligns with the broader industry trend towards digitalisation and remote offices.

ACHIEVING COMPETITIVE ADVANTAGE WITH INTEGRATED VOYAGE MANAGEMENT

As this report has explored so far, achieving a competitive edge in today's maritime industry requires a nuanced strategy that seamlessly blends advanced digital solutions with the unparalleled insights of human talent.

This balanced approach not only streamlines operational efficiencies but also fosters a dynamic environment where technological innovation and skilled personnel drive commercial voyage management to new heights. However, several considerations need to be made to ensure the successful implementation of voyage management processes and systems and lay the foundation for long-term scalability and growth.

Several considerations need to be made to ensure the successful implementation of voyage management processes and systems and lay the foundation for long-term scalability and growth.

CHALLENGES AND CONSIDERATIONS

THE NEED FOR SYSTEMS TO TALK TO ONE ANOTHER

One of the major challenges with an end-to-end approach to voyage management is that not all systems and solutions will be compatible with others.

Systems need to be able to 'talk' to one another to ensure data is transferred as quickly and accurately as possible for real-time decision-making. Integrating various systems and processes into a cohesive end-to-end management framework can be complex. Differences in software platforms, data formats, and operational protocols can hinder seamless integration and require significant time and resources to address.

When selecting systems that form part of an end-to-end approach, the first step should be to ensure that they can integrate with existing and future systems. A trial period and a phased implementation with thorough testing and feedback at each stage can help to bring to light any hurdles that might inhibit smooth integration. Here, the prospect of a unified commercial voyage management application stands out. Such a platform would not only streamline data flow across various operational facets but also simplify user interactions, making comprehensive voyage oversight more accessible and efficient.

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THE SHEER VOLUME OF DATA

Another consideration is the sheer volume of data that systems have to deal with today. Will those chosen be able to process such quantities? True end-to-end voyage management requires a centralised data hub, which means integrating data from a myriad of sources. These systems have to be capable of storing, processing, and transmitting large quantities of data to enable raw data to be turned into actionable insight.

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DON'T FORGET THE HUMAN ELEMENT

It's also important to consider the additional skills that might be needed by people and whether further training will be required for those unfamiliar with certain areas. This is a cost and time factor that must be taken into account. While this could create additional work, it also presents a new opportunity for increased collaboration between departments. Under an end-to-end voyage management approach, operations, administration, and finance teams will be required to work more closely together to share responsibility for the voyage post fixture activities. This increased collaboration lends itself to the increased sharing of knowledge and skills, ultimately driving a more educated workforce.

In addition, better collaboration and transparency can help to reduce blame culture as greater clarity around the actions and responsibilities is provided.

THE RISK OF OVERDEPENDENCE ON TECHNOLOGY

Another factor that should be taken into account when expanding technology and automation in an organisation is the risk that people may become overdependent on it. With more integrated technology onboard, there's a higher risk that if something goes wrong, the impact will be widespread. "It is important for people not to become so dependent on technology making decisions for them that they forget how to make them themselves," one ship operator told us.

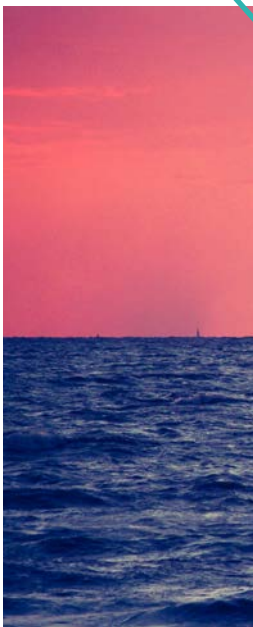
The flow of data between systems brings many benefits, but it so too unfortunately increases the window of opportunity for cyber criminals to infiltrate.

AN INCREASED RISK OF CYBER CRIME

The flow of data between systems brings many benefits, but it so too unfortunately increases the window of opportunity for cyber criminals to infiltrate. Recent research conducted by Thetius found that the average price paid for ransom is US $3.2 million and on average, these breaches cost organisations $550k over the last three years.[16] Having systems that are cyber secure by design, raising awareness among the organisation, and instilling cyber security practises is key.

DATA PRIVACY

Collecting and analysing vast amounts of data raises concerns about data privacy and the need to comply with international data protection regulations. Ensuring the confidentiality and integrity of data while adhering to legal requirements should be seriously considered.



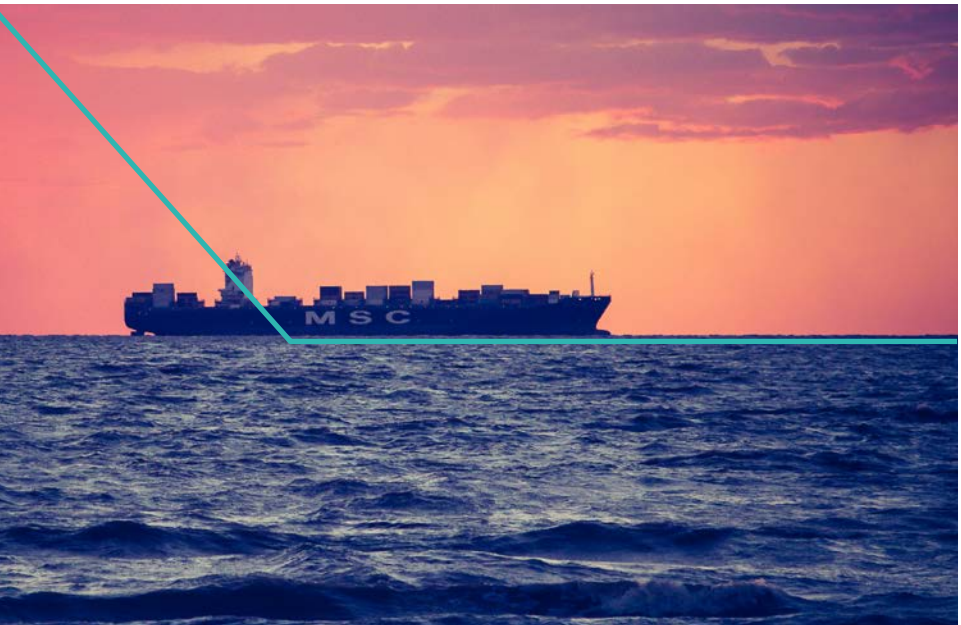
16 Thetius (2023) Shifting tides, rising ransoms and critical decisions

SCALABILITY AND GROWTH POTENTIAL

More and more data is being created and analysed during voyages. Systems that are used to enable an end-to-end approach need to be able to keep up with the growing demands of data from across many different systems. Market demands are increasing, regulatory requirements are tightening, and operational requirements are changing, meaning that voyage management has to evolve to meet these needs.

Systems must also be capable of adding new technologies such as AI or increasing their data capacity to ensure they keep up with the rapid pace of technological change. It's also important for current or new systems to be able to integrate with others, like supply chain systems, to share real-time data and increase visibility for true end-to-end voyage management.

Modular systems are also useful for scalability as they can often be customised, and new functions can be added when required. This also allows an organisation to select the modules needed at the time and scale as and when required.



This service model, akin to a turnkey solution for voyage management, offers scalability, flexibility, and the potential to democratise access to top-tier commercial voyage management strategies.

EMBRACING SERVICE MODELS FOR COMMERCIAL VOYAGE MANAGEMENT

The concept of Commercial Voyage Management as a Service (CVMaaS) such as GeoServe's GeoVoy offering, introduces a transformative model for the industry, especially new setups. Drawing parallels from the successes of independent technical ship management, CVMaaS offers a comprehensive, end-to-end management solution on a simple per ship or per voyage basis. This model combines a robust digital ecosystem with expert human oversight, promising heightened efficiency, predictable cash flow, and a streamlined operational framework for entities of any scale. This service model, akin to a turnkey solution for voyage management, offers scalability, flexibility, and the potential to democratise access to top-tier commercial voyage management strategies.

This collaboration between human creativity and technological efficiency not only boosts productivity but also fosters a healthier work-life balance, showcasing the symbiotic relationship between people and technology in the modern workplace.

PEOPLE VS TECHNOLOGY: WHY DIGITAL TOOLS WON'T REPLACE THE HUMAN ELEMENT

The prevailing notion that sophisticated technologies and AI-driven robots are on the brink of replacing human roles is a misconception that can deter employees from embracing new digital tools. However, this perspective overlooks the fundamental truth that humans and technology are not in competition; rather, technology serves as a tool to augment human capabilities, leading to enhanced productivity and a more balanced work-life.

Dharm Parikh, who leads Strategy & Product Development at GeoServe, emphasises that despite the rapid advancement of AI, the need for human intelligence will still remain relevant. He says, "The relationship between humans and technology is not adversarial but complementary. Digital tools and AI are here to automate repetitive and mundane tasks, allowing humans to focus on higher-value activities." This collaboration between human creativity and technological efficiency not only boosts productivity but also fosters a healthier work-life balance, showcasing the symbiotic relationship between people and technology in the modern workplace. Contrary to fears of job displacement, AI and other technologies are poised to significantly enhance workplace productivity.

Another critical consideration is the inherent limitation of even the most advanced technologies – their susceptibility to failure. This underscores the indispensable role of skilled professionals who can intervene and rectify issues as they arise, reinforcing the notion that human intelligence surpasses that of machines.

Beyond the realm of technology, the human element is crucial in numerous operational aspects, such as in the shipping industry where tasks extend beyond navigation to include maintenance of machinery. These roles necessitate a human touch, illustrating the irreplaceable nature of human involvement in various sectors.

To facilitate the successful integration and utilisation of new technologies, it is vital to actively involve employees in the process, demonstrating how these tools are designed to support, rather than replace, their roles. Encouraging early interaction and feedback can greatly enhance the likelihood of successful technology adoption.

MOVING FORWARD

The path to securing a competitive advantage in commercial voyage management lies in a strategic fusion of digital innovation and human expertise. By embracing an integrated approach that incorporates the potential of unified applications and the efficiency of service-based models, companies can navigate the complexities of modern voyage management with agility and insight. This forward-thinking approach not only addresses today's challenges but also sets a course for sustainable growth and resilience in the ever-evolving maritime landscape.

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CONCLUSION & RECOMMENDATIONS

Speaking with various shipowners, operators, managers, and charterers, this latest research by Thetius suggests that switching from a traditional approach to an integrated whole-systems approach can vastly reduce software sprawl,[17] enhance productivity for vessel operators, and ultimately drive a more profitable voyage.

While traditional voyage management considers the various elements of a voyage in silos, the integrated approach takes a more holistic stance, giving thought to the interactions and interplay between processes, people, and systems.

While traditional voyage management considers the various elements of a voyage in silos, the integrated approach takes a more holistic stance, giving thought to the interactions and interplay between processes, people, and systems. Data from multiple sources and systems is synchronised and processes are streamlined. As a result, decisions are made based on complete and real-time information, providing a more efficient workflow from pre-fixture to post-voyage analysis.[17]

Based on the findings of the research, Thetius recommends several steps that can be taken to improve the efficiency and profitability of a voyage with an integrated management approach.

17 TechCrunch (Nov, 2021) The consequences of SaaS sprawl: A real-world study

RECOMMENDATIONS

01

CHOOSE A SOLUTION PROVIDER THAT WILL HELP YOU TO UNDERSTAND YOUR DATA

A good vendor should be able to do far more than just sell you a commercial voyage management solution. The first step is to choose a vendor that has the knowledge and experience to understand the complexities and requirements of all the stakeholders involved in a commercial voyage chain. The second step should be to ensure that your chosen vendor can manage, validate, and help you understand and use your data to enhance productivity and improve profitability.

The first step is to choose a vendor that has the knowledge and experience to understand the complexities and requirements of all the stakeholders involved in a commercial voyage chain.

A vendor that can demonstrate how the insight and analytics delivered by their platform will help various individuals across different departments to improve their job performance is key. For example, a captain, technical manager, chartering team, commercial ops team, bunker procurement team, voyage accounting team, and owner, will each likely want to monitor different attributes of the same voyage in progress. It is sensible to ascertain whether your vendor or solution provider can cater to specific insights for different customer personas to help improve decision-making across the organisation.

Understanding how a system or solution will impact different roles will make it easier for all stakeholders who are expected to use the new system to understand exactly what it can do for them. This will help to deliver clarity around individual objectives and ensure everyone is aligned towards the common goal of conducting a profitable voyage. In turn, this enhances collaboration and ensures that all stakeholders are focused on maximising overall voyage efficiency and profitability.

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02

OPTIMISE THE ECOSYSTEM FOR A BETTER HUMAN EXPERIENCE

Adopting an integrated approach to voyage management significantly alters how departments collaborate towards shared voyage goals, including pre- and post-fixture obligations. It is vital to anticipate how these new systems will transform the working experience and ensure that both individuals and the organisation as a whole are equipped for these changes.

This transformation requires a balanced integration of technology and processes that simplifies rather than complicates the workflow. While technology is a powerful tool for improving efficiency, an over-reliance on multiple, disjointed technological solutions can lead to challenges that may overshadow their benefits. To avoid this, it is essential to foster an ecosystem where technology complements human skills, enhancing the synergy between digital tools and human input.

While technology is a powerful tool for improving efficiency, an over-reliance on multiple, disjointed technological solutions can lead to challenges that may overshadow their benefits.

Not only does this include training the commercial voyage management teams on new systems, but also ensuring they understand how to leverage features of these tools in their day-to-day responsibilities. Ultimately, this will help to maximise productivity and job satisfaction.

Digital optimisation initiatives within this ecosystem can yield substantial near-term benefits with considerably lower risks compared with more extensive digital transformations. By focusing on optimising current operations through digital enhancements, organisations can create a robust foundation that supports ongoing improvement, establishes a more linear learning curve for their teams, and paves the way for future innovations.

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03

LEVERAGE COMMERCIAL VOYAGE MANAGEMENT AS A SERVICE

Commercial Voyage Management as a Service (CVMaaS) offers a robust solution for companies, particularly new entrants or those seeking to restructure their existing commercial voyage management setup. Such turnkey solutions combine skilled professionals, proven processes, and integrated platforms into a cohesive service offering, eliminating the need for companies to hire talent, set up, develop, or subscribe to multiple software solutions.

By adopting this model, companies can leverage industry expertise, and effectively capture tangible savings through economies of scale.

Such turnkey solutions combine skilled professionals, proven processes, and integrated platforms into a cohesive service offering, eliminating the need for companies to hire talent, set up, develop, or subscribe to multiple software solutions.

The service model requires no upfront setup fees and can significantly improve financial and operational efficiencies while mitigating commercial risks.

CVMaaS is also beneficial for companies that may not have the resources to manage seasonal spikes in their fixture activities. By adopting this model, companies can leverage industry expertise, and effectively capture tangible savings through economies of scale.

These setups are easily scalable and can readily handle everything from regulatory compliance to pre- and post-fixture activities, staying in sync with business cycles. This approach allows companies to direct more resources toward core business growth and strategic expansion, optimising overall efficiency and resource allocation.

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