



Scheduling and Resource Management for Cruise Lines

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Introduction

Ensuring regulatory and safety compliance whilst maintaining a high level of customer satisfaction is a common objective of all cruise lines. All too frequently however, the information and process challenges involved in managing such large, diverse, and international crews can restrict the degree of optimisation and can lead to very manual processes. Given the high crewing costs involved, this can have serious commercial as well as wider customer service implications. Fortunately, leading systems such as Allocate OneView offer the potential to greatly reduce the management task, enabling fully evaluated optimisation and compliance decisions to be made, both operationally and strategically. Drawing on decades of experience, Allocate offers both the systems and services to address the specific requirements of cruise lines to optimise not only their crewing activities, but also their overall organisational design.

Challenges

The complexities of managing crews in an optimal and compliant manner presents huge challenges, but conversely huge opportunities for cost control, service improvement and strategic performance when the issues are overcome. The workforce size and costs, the degrees of regulation and the further nuances of operating internationally means the process is exceptionally information intensive. However, solutions which fully address these requirements can open new opportunities on multiple levels. Allocate OneView is such a system. Drawing on Allocate's long track record and deep domain knowledge within the maritime and cruise industries, Allocate OneView provides the ability to efficiently support the entire scheduling process to directly meet the needs of the industry. Moreover, its architecture provides unique flexibility to analyse, plan and align with near term demand change, but also wider regulatory and indeed industry change, so that overall organisational capability, as well as operational scheduling, can be enhanced and monitored.

OneView joins up workflows and provides the additional functionality demanded by the sector

Solutions Built on Deep Domain Knowledge

Allocate has served the needs of the cruise and wider maritime industries for over 25 years. Having worked with some of the most respected organisations in the industry, we have a deep understanding of the strategic context, operational challenges, and best practice solutions not just of scheduling and optimisation, but also for the allied workflows and associated organisational designs. We are able to provide solutions which help seamlessly join up each of the workflows, from operational through to finance and HR levels, and which provide the additional functionality demanded by the nature of the sector. As a result of the improved strategic capability, cost and operational control, clients are able to improve financial and overall business performance in the short, medium and long term.

Our experience ensures we also understand the strategic context of the industry and the ways in which scheduling, and optimisation can play a part in addressing key strategic objectives of client organisations. With growth into new markets for example, distribution and balance of experience across the fleet or for new builds can be critically important. Allocate can support this process and the strategy can be implemented into the scheduling rules and even ship design. Similarly, luxury cruise differentiation strategies can have clear resourcing implications which Allocate can support, both through fully informed analysis of the different resourcing scenarios and execution of the chosen approach. As the industry consolidates to gain share and achieve further economies of scale, we have the expertise, and tools, to be able to support this process at analytical levels and system enablement levels with our unique SaaS model and its advanced interfacing capabilities.

Allocate OneView coupled with our comprehensive professional services provide a unique capability to help cruise operators address the key challenges in the industry as set out in this paper.

Optimal Resourcing

The scale, complexity and regulatory requirements involved in crew scheduling is uniquely challenging for the cruise industry, particularly where the further complications of international operations and logistics are included. Alongside ongoing pressure to drive margin and customer service improvement, this creates a pressing demand for resource optimisation across deck, engine, and hotel crew.

Achieving and maintaining optimal resourcing is, however, far from straightforward, involving extensive and dynamic information management and processing. Frequently, the scale of this task prevents full analysis, frustrates fully informed decision making and thus constrains effective optimisation. However, the advanced scheduling capability of Allocate OneView coupled with the embedded reporting and decision-making tools can now overcome these barriers. In doing so, Allocate OneView can free management time to focus on customers, service, and revenue improvement, whilst ensuring full regulatory compliance and commensurate reduction in the risk of corporate litigation for non-compliance.

Fully informed scheduling decisions can only be made through comprehensive analysis of the compliant resourcing options and their implications (for the activity being scheduled as well as overall capability). Traditionally however, the scale of the task and the time required to process the matrix of options meant full evaluation was not possible before having to proceed to implementation. As a result, sub-optimal solutions which are compliant but miss potential margin and service improvement opportunities may be deployed by default.

In contrast, if the issues involved in optimisation can be addressed, then the potential to positively impact margin and customer service can be leveraged for improved overall business performance. Using sophisticated resource optimisation and scheduling systems such as Allocate OneView this potential can now be realised.

Margin and customer service can be positively impacted

Controlling Costs

With the direct labour and allied travel costs for crews being so large, the scope for improvement in these areas with sophisticated management systems, such as OneView, are significant. Even with small percentage changes, cruise operators can accrue multi-million-dollar savings over time.

Resource optimisation spans all aspects of workforce planning and, in the cruise industry, crew travel presents particular challenges. Such travel is operationally critical to ensure the right personnel are in the right places, with the right documentation, at the right time. But it also involves considerable cost which can quickly escalate when planning is not effective, or where joined up systems and monitoring controls are not in place. Fortunately, as well as providing the most capable scheduling capabilities, OneView also addresses the complete travel logistics requirement to ensure controlled, efficient processes with consequent cost control and margin improvement benefits.

At each level, OneView brings together all of the required information in one core platform (interfaced to other relevant systems) and enables scenario planning including budgetary analysis alongside full demand planning and compliance management. With this capability, management teams are enabled to make fully informed decisions which facilitate optimised resourcing. Flowing from these decisions, operational planning and deployment are catered for in one streamlined process covering aspects from the resource deployment itself through the allied logistics to ultimate payroll impacts, with full compliance management at its core.

**OneView also
addresses the
complete travel
logistics requirement**

Compliance

Compliance with multi-tiered regulatory requirements including STCW, IMO and ILO as well as the United Nations Convention on the Law of the Sea (UNCLOS) is, of course, a central and overriding focus for cruise lines. Given the information requirement and processing dependencies, ensuring compliance has traditionally been complex, time consuming and costly. Fortunately, advanced resource optimisation systems, such as Allocate OneView, can now help management teams both ensure and evidence compliance.

Although all cruise lines are committed to ensuring full regulatory compliance, unfortunately non-compliance issues do arise. In these instances, the implications can be extremely serious and even life threatening. Financial penalties can be high and brand damage can incur potentially even greater indirect cost as witnessed in the offshore engineering industry and from which many lessons can be learnt. Ultimately, corporate liability is an ever-present concern in which the organisation, and therefore its owners and directors, may be directly liable for the acts and omissions of the people it employs.

Allocate OneView provides the ability to plan and schedule resources to operational demand whilst achieving full compliance with regulatory requirements and the wider logistics requirements, for example visa, flight details and entry letters etc. The system enables multiple rules to be defined and applied concurrently based on the applicable circumstances. Issues are automatically flagged to warn of impending non-compliance and thus enable timely management action. This flexibility not only ensures that organisations are better able to cope with numerous complex regulations, but also the changes in regulations and their implications over time.

Using an advanced system such as Allocate OneView also reduces the burden of maintaining the necessary evidence to demonstrate compliance. Up to date records and associated processes can be easily accessed and audited at any time to prove that compliance has been maintained.

In addition to facilitating both a compliance management and auditing capability, Allocate OneView enables efficient coordination of the information surrounding this process. This can, for example, include training records management, certification, and visa management, so that the deployment of staff is based on the latest and most current information. Similarly, system generated reminders of upcoming renewal requirements help ensure that training and re-certification tasks as well as visa renewals can be planned in good time.

Through these combined capabilities, Allocate OneView not only helps ensure full compliance but also dramatically reduces the work (and hence cost) otherwise involved in managing such a complex and critical process.

Issues are automatically flagged to warn of impending non-compliance

System Interfacing

In managing the different information involved in scheduling and optimisation, organisations face the option of either seeking an integrated application suite (frequently based around an existing ERP system) or selecting the best available applications to provide discrete systems interfacing with others as needed. Both approaches have merits:

- In an integrated system, the functionality of each component is not typically as advanced as specialist applications, but conversely the information interfacing challenges are largely removed.
- In the best available discrete system interfacing approach, as used by Allocate OneView, specific applications are selected to deliver separate requirements based on their own merits. In this way, the most advanced and up to date application can be selected for different requirements such that full system capability is maximised. This offers the ability to gain a greater operational advantage more rapidly so that the latest capabilities can be harnessed for business advantage. This also offers the potential to overlay new applications to derive incremental benefit (for example in advanced resource optimisation) without compromising existing applications, but it is dependent on effective and seamless interfacing between systems.

Fortunately, Allocate OneView can greatly ease the systems interfacing challenges. OneView provides interfaces with most of the leading ERP and HR systems as standard, enabling easy information exchange for core financial, HR and payroll requirements. Where required, further bespoke interfacing is also available through Allocate's professional services teams.

Being delivered on a Software-as-a-Service (SaaS) basis, accessed either via public or private clouds, OneView also overcomes many of the financial barriers associated with capital purchase, as well as the IT implementation and management challenges resulting from an in-situ renewal. Collectively, these approaches mean the benefits of leading-edge resource optimisation capabilities are now more accessible than ever to the cruise sector.

Interfacing with most of the leading ERP/HR systems enables easy information exchange for core financial, HR and payroll requirements

Demand Variance and Change Readiness

By the nature of the sector, change is constant at both an operational, but also wider market and regulatory levels. Each of these can have a critical impact on current scheduling optimisation as well as longer term organisational development.

Operationally, whilst many scheduling approaches focus on the current schedule alone, OneView provides the capability to cope with dynamic demand requirements so that schedules can be developed for varying requirements over time. Moreover, as these change, the schedules can be quickly analysed and amended to ensure that they remain both optimal and compliant.

At a strategic level, the system can also help support overall organisational development to meet the longer-term requirements required to thrive in a highly competitive and dynamic industry.

Specific aspects may also include:

- **Accelerated informed decision making:** Resource optimisation involves a vast array of data sets frequently in different information systems. To overcome these challenges, Allocate OneView brings together all of the required information in one core platform, to provide an enterprise-wide view of resourcing and demand. Building on this information and combined with sophisticated analysis capabilities, fully evaluated scheduling decisions can be made with clarity on the financial implications. The capability provided by Allocate OneView thus enables management teams to make fully informed, timely and accelerated decisions that could significantly improve business agility.
- **Thriving in regulatory and industry change:** At a higher level, coping with regulatory and indeed industry change is a major and costly management burden which can have a significant impact on scheduling effectiveness as processes are adapted to cope with the new requirements. As a result, the ability to capitalise on wider opportunities and minimise issues can be compromised.

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One of the major consequences of such changes is how scheduling systems and processes are adapted to reflect the new requirements and yet still maintain optimal use of resources. Traditional scheduling systems were frequently developed based on the rules in force at the time and altering them to cope with the present-day circumstances can be time consuming and costly.

In contrast, systems such as Allocate OneView, are designed specifically to cater for ongoing change through flexible configuration of the applicable scheduling rules. Not only does this overcome the barriers otherwise experienced, but the system can also be used to analyse potential future changes. As a result, organisations can remain agile and are able to adapt quickly to regulatory change and thereby maintain and indeed improve business performance.

At a stage in the industry where growth into new geographic and luxury markets, enabled with new vessels, is a key theme, the capability can also help focus on development of the total organisation to meet the expanded requirements in a way which offers the most effective transition. In such instances, the challenge is of course not just about having the right numbers of crew, it is how they are distributed and balanced to provide experience across the fleet. In each of these ways, Allocate OneView can greatly help management teams evaluate the best options and lead the development of their organisation to achieve the best overall business performance.

OneView can help management teams evaluate and select the best options for overall business performance

OneView supports overall organisational development

Staff Engagement

The information challenges involved in scheduling do not just apply at management and process levels. For crew members, ensuring their information is up to date and accurate and that they know all that they need about their schedule can be burdensome and a frequent cause of frustration. With Cruise lines seeking to maximise staff motivation and retention, this can be a significant concern. Fortunately Allocate OneView can help address this on multiple levels from day-to-day self-service information management, process management, and through to wider staff engagement, including:

- **Scheduling and information administration:** Scheduling of staff, as discussed earlier is complex, particularly during the extended operational periods that apply in the cruise sector. The information dependencies from skills mix and certification, travel requirements and visas, personal preferences and holiday and training commitments place a heavy burden for both employers and employees. Whilst this complexity carries cost and time implications for organisations, for staff it can all too frequently act as a demotivating frustration. Approaches such as Allocate OneView's self-service capability, can greatly reduce these issues helping ensure all information is up to date and accurate, but critically also reducing frustrations for crew members.
- **Staff development and retention:** For cruise lines, attracting, developing, and retaining good staff is critical, particularly given the growth demands of the sector. As well as the reduction of demotivating information management burdens, at a higher level, Allocate OneView's ability to support overall staff development and specific career/training planning has clear motivational benefits for staff and workforce management benefits for employers.

Self-service can help ensure all information is up to date and accurate

Conclusion

The scheduling and optimisation requirements of the cruise sector are uniquely challenging and complex. As a result, opportunities for business performance and customer service improvement are frequently missed. Advanced systems such as Allocate OneView can help overcome these challenges and, as result, can open new opportunities for margin and service improvement, reduce compliance risks and greatly ease the process for management and staff alike. At a critical stage for the industry these capabilities can help improve staff engagement and retention, but also facilitate wider strategic development. From Organisational Design to optimising the crewing approach for new markets, to planning for consolidation within the industry, Allocate OneView provides leadership teams with the means to make accelerated, informed decisions at every level.

About this paper:

This is one of a series of papers exploring key business issues faced by complex organisations in resource scheduling and discussing the ways in which Allocate OneView can help address these challenges.

To find out more about any of the topics discussed in this report, please email: marketing@allocatesoftware.com
