



Scheduling and Resource Management for Offshore Engineering

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Introduction

Ensuring regulatory and safety compliance whilst maintaining optimal resourcing levels and efficiently managing the complexities of remote operations are ever present challenges for the offshore industry. All too frequently however, the information and process changes involved in managing such complex, diverse, and international crews can carry heavy management burdens and restrict the degree of optimisation. Fortunately, leading scheduling and resource management 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 in the maritime and offshore industry, Allocate offers both the systems and services to address the specific requirements of the sector, supporting offshore operators to optimise not only their crewing activities, but also their overall organisational design.

Challenges

The complexities of managing offshore crews in a compliant and optimal manner presents huge challenges. The degrees of regulation, skills requirements, demand variance and the further nuances of operating internationally means the task is exceptionally process and 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 offshore 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.

OneView efficiently supports the entire scheduling process'

Solutions built on deep domain knowledge

Allocate has served the needs of the offshore and wider maritime and defence industries for over 25 years. Having worked with some of the most respected organisations in the industry, we have a deep understanding of the unique challenges and best practice solutions not just of scheduling and optimisation, but also all of the allied workflows and the complexities of organisational design. Consequently, we are able to provide solutions which help seamlessly join up each of the workflows, for example, in ensuring staff are ready to embark a vessel or start a project, from visa applications and travel logistics through to onboard management (sign on/off and no-shows) and efficient cabin management. This capability also flows through more routine ERP/HR integrations where not only can we ensure seamless integration, but also provide the additional functionality demanded by the nature of the sector. For example, managing the multiple different tax jurisdictions involved in international deployments and tours.

Whether for oil & gas extraction, allied processing, or engineering, Allocate OneView brings together all of the information required to address the complete scheduling and allied processes. From full crew attributes, through training, skills and compliance records, organisation structures and required roles and responsibilities, each aspect is addressed to enable offshore organisations to optimally manage their crews both in the near and longer term. In doing so, Allocate OneView helps organisations address some of the key issues in the industry as set out in this paper.

We understand the specific challenges and best practice solutions for the offshore industry

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 the offshore industry. 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 organisations in the offshore industry are committed to maintain 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 Deepwater Horizon oil spill in the Gulf of Mexico. 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 monitoring full compliance with regulatory requirements and the wider logistics requirements, e.g. visa applications, 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.



**Compliance Issues
are automatically
flagged to warn of
impending non-
compliance**

Optimal Resourcing

Whilst maintaining full regulatory compliance, resourcing also needs to be optimised to ensure operational efficiency and cost control, factoring in all allied aspects such as travel and logistics as well as core staffing costs.

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.

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 organisational capability). Traditionally however 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 were compliant but missed potential margin and service improvement opportunities could be deployed by default.

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

OneView brings together all of the required information in one core platform (interfaced to other relevant systems) and enables scenario evaluation 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.

Margin and customer service can be positively impacted.

Staff Engagement

The information challenges involved in scheduling and compliance 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 and longer-term development can be burdensome. 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 & information administration:

- Scheduling of staff, as discussed earlier, is complex, particularly during the extended operational periods that apply in the offshore industry. The information dependencies from skills mix and certification, travel requirements and visas, personal preferences and holiday and training commitments place a heavy burden on 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 and reliance on large back office scheduling teams.
- Staff development and retention: Recruiting, developing, and retaining good staff is a critical challenge within the industry. As well as the reduction of demotivating information management burdens, at a higher level, Allocate OneView's ability to support overall staff development and the specific training planning to facilitate individual and overall capability development has clear motivational benefits for staff and planning benefits for employers.

OneView simplifies day to day activities for staff whilst facilitating ongoing capability development

Demand variance and change readiness

By the nature of the sector, change is constant at operational as well as wider industry and regulatory levels. Such changes can have a critical impact on current scheduling optimisation as well as longer term organisational development planning.

Operationally, whilst many scheduling approaches focus on the current schedule alone, OneView provides the capability to plan and manage dynamic demand requirements so that schedules can be developed for varying requirements over time. This unique capability to manage demand and develop schedules to a timeline greatly enhances management capability, and when there are changes, the schedules can be quickly analysed and amended to ensure that they remain both optimal and compliant at all times.

At a strategic level, the system can also help support overall Organisational Development to meet the longer-term needs 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 business intelligence analytics and reporting capabilities, fully evaluated scheduling decisions can be made with clarity on the financial and operational 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. 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 could be time consuming and costly. In contrast, Allocate OneView specifically caters for ongoing change through flexible configuration of the applicable scheduling rules. Not only does this overcome the barriers otherwise experienced, but it also enables comprehensive analysis of the impact of future change scenarios. As a result, organisations can remain agile and are able to adapt quickly to regulatory change and thereby maintain and indeed improve business performance.

OneView supports overall organisational development

Nuanced scheduling implications

With a long track record working with leading organisations within the offshore industry, we fully understand the industry specific nuances associated with the complete resource management process, including for example, in enabling reduction in the time to invoice. Where invoicing is based on the workforce activity, Allocate's systems have helped a number of clients improve their invoicing process, reducing the effort required to compile an invoice and reducing the time before such invoices can be raised. Called 'Activity Time Capture', the system enables timesheets to be generated automatically based on project codes and patterns, and then coupled with different work types and rates to present the output data in a format ready for finance to invoice. Given the different tax jurisdictions which may be involved in international assignments, Allocate can also track what tax sector staff are working in, so that the appropriate taxes can be applied.

In this example and the myriad other industry specific requirements, Allocate has the deep domain knowledge and systems capability to be able to support clients to address these needs faster, more effectively and more efficiently than ever before.

We understand the industry specific nuances associated with the resource management

System interfacing with full SaaS benefits

Drawing all of the information together to address the core scheduling, optimisation, and all allied activities, OneView provides a singular, unified view for management. Key elements of this will already be contained within HR or ERP systems and rather than seeking to replicate this data and functionality, OneView provides comprehensive and seamless interfacing to existing systems.

This capability is critically important enabling the best available solution to be deployed without compromising existing applications and functionality. OneView provides standard interfacing as a matter of course for major ERP solutions such as SAP and Oracle, whilst an API and bespoke interfacing address other requirements. In contrast to seeking a less capable but fully integrated solution, the interfaced approach ensures overall information systems capability and indeed investment can be maximised, whilst the new interfaced scheduling application ensures incremental benefit is rapidly realisable.

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 offshore industry. And, with OneView's SaaS model enabling ongoing innovation without the constraints of on-premises deployment, clients can be assured of always having the most advanced capability available.

OneView provides a singular, unified view for management

The benefits are now more accessible than ever to the offshore industry

Conclusion

The crew scheduling, optimisation and allied workflow requirements of the offshore industry are uniquely challenging and complex. As a result, opportunities for process efficiency, business performance improvement and risk reduction are frequently missed. Advanced systems such as Allocate OneView can help overcome these challenges and as a result, can open new opportunities for margin improvement, reduced compliance risks and greatly ease the process for management and staff alike. Developed to specifically address the needs of the industry, OneView addresses the full needs of the sector. From operational planning, management, and administration, to wider organisational design, Allocate OneView provides a comprehensive solution which opens new performance opportunities for the offshore industry.

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

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