

Management Summary

Cloud computing is the IT industry's latest obsession. It is depicted by its advocates as a revolution yielding to sharp reductions in capital expenditure on hardware and software licences and in annual taxes for maintenance of enterprise programs. Instead, Cloud adopters stand to gain from a pay-as-you-go subscription pricing, vastly reduced procurement needs and faster time to market.

However, every revolution attracts opposition from conservatives, sceptics and others and the Cloud is no exception. Even among those companies that have gone some way towards adopting the new model, plenty of obstacles remain in place.

At the time this research is being written, the global economy is facing tumultuous times. Since the 2008 crisis, we have witnessed many changes and consolidation in the maritime industry but unfortunately the recovery every professional was waiting for never really happened. Oversupply of tonnage, low commodity prices combined with a decreasing pace of main importing countries have all contributed to keep market rates at low levels. However, great opportunities often arise from problematic situations.

While market rates stagnate, the industry is seeing its profit margin shrinking month after month to a stage where every dollar becomes important and hence shipping companies are exploring new ways to improve efficiency and reinvent the way they leverage their infrastructure and services, eliminating locked capital assets while reducing Total Cost of Ownership. Cloud computing can be a key component of this transformation.

"Shipping Companies need to be able to adapt faster, reduce cost and increase efficiency"

The goal of this research is to define a methodology to assess a cloud computing solution for a shipping company in accordance to its technical and business requirements. In this respect, we proceed with a stakeholder analysis that identifies to what extent a solution could be supported and by whom. Once the stakeholders are identified, there is a need to determine if a service can be migrated to the cloud and to what extent the stakeholders will be impacted if such a solution is implemented. This can be answered by building a targeted questionnaire relevant to the audience. The survey and interviews are key success factors for our research as strategic positions and key processes are identified so they can be classified and analysed in relation to their importance.

Cloud service providers have invested huge funds in the recent years to develop their services and stay ahead of the competition as new features are being released on a weekly basis. For a fragmented market like the shipping industry, this represents a good opportunity for the consumer to consolidate all solutions with a single vendor that can guarantee daily operations and host specialized shipping application on its infrastructure the same way as if they were running in the headquarters' building but with the advantage to be completely hardware free. This is a key improvement compared to a standard setup since the consumer is by default protected against natural disaster and hardware failures. Powerful tools to control rights and identity management can be implemented to secure the solution and are mainly part of the pay-as-use subscription.

Throughout the case-study, all requirements and concerns have been gathered, TCOs have been calculated so a scenario could be built in order to highlight the cost savings and benefits that a cloud solution can induce. These strengths, opportunities, weaknesses and threats are synthesized in one figure.

	Beneficial	Harmful
Internal	<p>Strengths</p> <ul style="list-style-type: none"> • Cost and administration reduction • Process simplification • Hardware free • True mobility • Collaboration • Document management • Scalability • Resiliency • Security 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Resistance to adoption • Latency, connection time • IT staff lack of engagement • Lack of experience with technology • Data privacy and control • Wrong implementation
External	<p>Opportunities</p> <ul style="list-style-type: none"> • Analytics capabilities for maritime industry • New technology at low cost • Reduce carbon footprint • Create value, innovate 	<p>Threats</p> <ul style="list-style-type: none"> • The Big Nine • Cloud maritime market limitations • Vendor dependency • Governmental screening

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