EXECUTIVE SUMMARY

The logistics industry has been growing in magnitude and the supply chain of today has been increasingly complex. In particular, the air cargo growth has been significantly impacted by recent economic situation. Singapore, as a logistics hub for the region, faces fierce competition to keep her leading role. As such it is important to inject innovative ideas in order to gain competitive edge.

In the setting of a complicated supply chain, there is much interaction between the parties. However, each party only manages to use their resources in a suboptimal way without viewing holistically. This arises due to a lack of true integration and collaboration between different parties. This is also the motivation for our proposal of ‘Data Value Chain As A Service’ (DVCAAS) which is about integrating all the data in a common platform, allowing better planning and optimization of resources.

While the benefits for such a platform can be tremendous, we foresee potential challenges facing the industry. The most drastic change would be in business model. Also, from the technology angle, there is a need to leverage on advancement in optimization techniques as well as data security and privacy issues. Lastly, process re-engineering is needed for a truly functional integration.

With these thoughts in mind, we propose a systemic study on how each stakeholder would benefit under the new framework based on the problems they now face. A cost benefit analysis is to be done on a system level. We also suggest a four step approach towards DVCAAS implementation, starting with enabling data integration and increasing cargo visibility, on to end-to-end optimization, eventually ending with sharing the service in a common platform, possibly through a neutral ‘cloud’ of shared computing resource and data hosted on an open platform.