

The Engaporean Air-Defence Upgrade: A Framework for a Case Study development project

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Abstract. Case studies have been shown to be a very effective way of learning, however the few case studies available in the systems engineering literature document the _what_ of the situation and fail to provide the _why_; the insight into the reason for the decisions. This lack of the _why_ is an undesirable situation because students will potentially be in similar situations in their futures and need to understand the reasons behind the decisions so they can make their own informed decisions. This paper addresses that gap and instead of providing yet another case study, it provides a framework or architecture for a case in which students can perform the activities and develop an understanding of not only the _what_s by the _why_s as well providing a broad overview with plenty of scope for discussion and exercises in each phase of the system development lifecycle (SDLC). The bulk of this paper sets out the timeline for, and provides a high level description of, the Engaporean Air-Defence upgrade process. The last section of the paper points out some of the extension opportunities currently planned as well as proving a number of discussion points and exercises.