

# Interoperability in aerospace and defence

*Howard Mason, Co-Chair UKCeB Joint Information Standards Co-Ordination Team (JISCOT) and Corporate Information Standards Manager, Office of the CIO, BAE Systems, writes exclusively for MOD DCB, outlining how interoperability in aerospace and defence will continue to deliver efficient and effective solutions for Team Defence.*

**T**he global aerospace and defence (A&D) industry is often associated with companies such as Airbus, BAE Systems, Boeing, Lockheed Martin and Rolls-Royce. In reality though, the A&D industry comprises a complex global network of thousands of suppliers with a typical supplier being a small or medium-sized enterprise with fewer than 100 staff.

The supplier network depends increasingly on the use of information in electronic form: for the design process, manufacturing, financial transactions and the essential flows of data required to keep products in full working order throughout operational life-spans that are often measured in decades.

Different organisations use different combinations of software that, in turn, evolve on a much shorter timescale than the products the information describes. Companies serving many international

A&D customers can, therefore, be faced with handling information in multiple proprietary formats. This can require them to have numerous software systems to mirror those of their customers, with associated on-costs for purchase and training; or, they may have to acquire and validate multiple 'translation' tools.

Fortunately, there is a powerful and efficient alternative – information standards. The challenge is to select the most appropriate standards from the range of organisations that develop them at national, regional and global levels. The UK Council for Electronic Business (UKCeB) provides a forum to help companies in this regard.

Worldwide, the Aerospace Industries Association (AIA) in the US and the AeroSpace and Defence Industries Association of Europe (ASD) represent both large and small companies. They have progressively expanded the scope

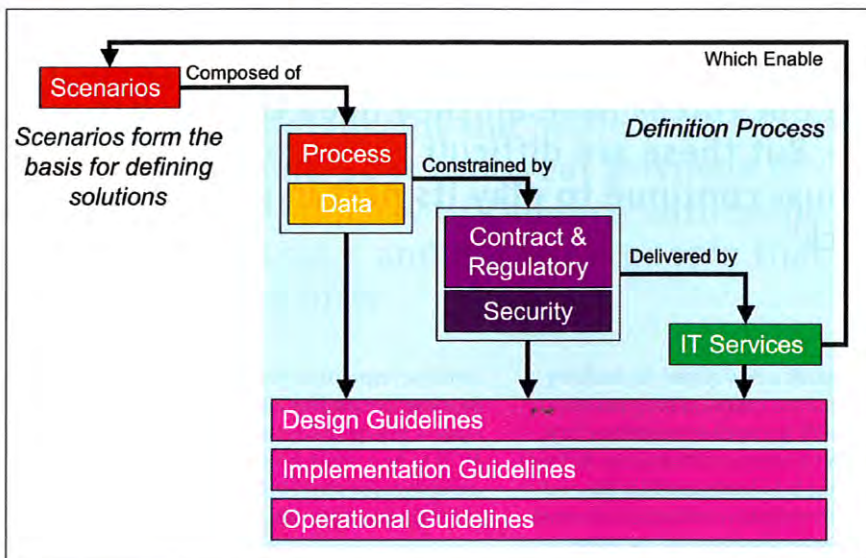
of their collaboration to harmonise recommendations on standards. For example, the AIA and ASD now use a common method for preparing recommendations (Figure 1) that relies on establishing a business-level understanding of an interoperability requirement. Typically, this comprises several processes and associated information flows between participating organisations, along with business constraints such as contractual, security or operational matters that need to be factored in.

The resulting requirement can be matched to standardised processes, information standards, IT services and other components adopted by the industry to provide a standards-based recommendation for a solution. Recommendations are subjected to thorough review through trade associations and are published on relevant websites. Selected standards are often accompanied by expert guidance on how they should be used in designing, implementing and operating the solution.

Within the ASD, initiatives are tracked on a simple radar screen graphic comprising three concentric bands showing relative status. The outermost tracks initiatives of emerging relevance. Blips in the middle ring represent candidate standards relevant to the A&D industry. Following formal adoption, these are shown within the innermost circle.

The shared approach to interoperability in A&D has proved to be efficient in delivering effective solutions. Although the results are not binding on individual companies, published best practice guides help companies to make the most efficient choices in achieving interoperability.

## ASD Delivering Business Solutions



How to build interoperability into your Technology Roadmap – ASD Convention 2012 & Technology Forum – Lisbon, 11 October 2012

### Further Information

For more information on how the UKCeB is proactively supporting interoperability in A&D, visit: [www.ukceb.org](http://www.ukceb.org)