

## Delivering e-capability to BAE Systems

### Delivering e-Capability services

The BAE Systems Logistics & Information Systems (L&IS) division identified a key requirement to provide more capable fleet management and planning tools to the Tornado ATTAC fleet management team. The L&IS team conducted extensive research and evaluated several potential software products.

In 2006 BAE Systems selected Aerogility to form the foundation of their fleet simulation (FleetSim) application. The BAE Systems e-capability service line vision consists of solutions that support contracting at all levels of the contracting staircase. This strategic development reflects the evolution in the aerospace and defence sectors towards 'contracting for availability' and away from traditional spares and maintenance services contracts.

The e-capability strategy is to improve the cost effectiveness of information services by maximising the reuse of existing infrastructure and solutions.

Andrew Gordon, solution architect for BAE Systems, commented that Aerogility offered two key benefits: "Aerogility gives us the ability to develop dynamic simulation capabilities and intelligent decision-support for our business – and crucially the ability to deploy it to the whole fleet planning community in our enterprise-wide e-capability architecture."

### **ATTAC (Availability Transformation: Tornado Aircraft Contract) provides guaranteed availability of Tornado aircraft for the RAF**

The contract is potentially worth in the region of £1.5 billion and will save the MOD £510 million over the initial ten years of the programme. The approach builds on availability improvements and cost reductions achieved through earlier pilot programmes. For example, combined maintenance and upgrade has reduced traditional maintenance man-hours by 50% and support to the secondary power system has been undertaken at 23% less than the historical costs.

Under the ATTAC service, BAE Systems takes responsibility for 'depth' support at RAF Marham (the RAF will continue to carry out day-to-day flightline maintenance) and will combine this with a structured and cost-effective approach to inserting new capability into the aircraft, to maintain the aircraft's warfighting effectiveness throughout its service life.

The company will be responsible for ensuring the required aircraft, at an agreed capability, are provided to the front line when they are needed.

Source: [www.baesystems.com](http://www.baesystems.com)





### FleetSim powered by Aerogility

The FleetSim application is an integral part of the e-capability architecture. Underpinning FleetSim is the Aerogility multi-agent COTS product providing simulation capabilities. A joint Aerogility and L&IS team worked closely with the fleet planners to develop the BAE Systems multi-agent model. The model drives sophisticated fleet planning what-if scenarios and simulations, generating extensive availability and performance analytical data.

The ATTAC programme was a key driver for the business requirements; however, the team were careful to ensure that the model design was generic for all BAE Systems fleet planning requirements. The BAE Systems multi-agent model is in itself valuable intellectual property providing a range of business benefits. A powerful feature of FleetSim is an innovative 'Gantt chart in a browser' that enables the fleet planners to fine tune their simulation output and generate the approved final maintenance plans.

The Aerogility team delivered two prototypes that were reviewed extensively with the UK fleet planners. The production system was deployed to live operation nine months later following an agile development cycle.

The production version of the FleetSim application delivered immediate business benefits:

- Ten-fold increase in fleet planning variables and constraints to be simulated
- Reduction in fleet planning cycles from weeks to hours
- Substantial fleet planning team productivity improvements

In the longer term, FleetSim is an important step towards the strategic goals of e-capability, helping the business to achieve the substantial efficiency improvements and cost savings promised by the contracting for availability business model.

Paul Burke, Programme Director, e-Capability Logistics & Information Systems, commented, "We are responding to the evolving and demanding requirements of our customers in the defence sector, and we need best-of-breed solutions in our e-capability architecture. The feedback from our fleet planners is that they are delighted with the flexibility and power of the FleetSim service."

### The Chairman's Award for Transferring Best Practice

In September 2007, representatives from Aerogility joined the FleetSim team at the annual Chairman's Award ceremony in Blackpool, UK. The team were awarded the Chairman's Award (Bronze) for Transferring Best Practice in the Logistics & Information Systems division.

### About Aerogility

Aerogility is an enterprise-scale intelligent decision-support system designed for the aerospace & defense aftermarket.

- Benefits sustainment and fleet operations teams delivering performance-based logistics, contracting for availability and total care.
- Advanced multi-agent software technology to simulate business What-if scenarios in a dynamic and realistic model of an aerospace aftermarket.
- Scalable and high performance enterprise product that can be accessed by multiple personnel using a standard browser.

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