



today, increased competition has prompted our customers to buy from overseas suppliers. For the first time, we are required to work closely with organisations in Switzerland.”

These new partnerships posed a major challenge for BAE Systems Hägglunds. As its designers made engineering amends to vehicles, they needed to communicate these changes to the partner organisations quickly and efficiently. But security requirements imposed by military customers demand restricted networks, which prohibit Internet connectivity from BAE Systems Hägglunds’ computers.

With 185 vehicles to deliver, each carrying complex equipment and software systems, keeping track of the specific configuration of individual vehicles was a complex process and necessary for ongoing maintenance. It was vital that BAE Systems Hägglunds could easily share information with relevant organisations to eliminate potential delays to the project. “We needed to find a more efficient solution than simply sending changes on CD-ROM through the postal service,” says Ljung.

## Solution

BAE Systems Hägglunds worked with Microsoft® Certified Partner and software developer Eurostep to implement its engineering supply chain solution—Share-A-space®. This offers a common information hub that product designers, manufacturing engineers, and product-support engineers across partner organisations can use to share engineering information securely. The application accelerates the process of implementing changes, ensuring that users work from up-to-date models and plans. The solution also supports the Product Lifecycle Support standard published by the International Organisation for Standardisation. This was created to regulate the information needed to maintain complex

engineering products such as aircraft and military equipment.

Ljung says: “Using Share-A-space®, we issue work orders that describe any required changes. Its configuration management features mean we can issue the work order against the vehicles affected by that particular change only.”

The Share-A-space® system is built using Microsoft Visual Studio 2008 and is deployed on the Windows Server® 2003 operating system, soon to be upgraded to Windows Server 2008. Mattias Johansson, Director Software Products, Eurostep, says: “Microsoft technology provides a stable development environment for Share-A-space®, and helps us to build and update our technology quickly. Alternatives such as J2EE were not mature enough for us to use in an enterprise environment.”

Share-A-space® generates sophisticated reports using Microsoft Office Excel® 2007. Johansson explains: “The usage of Office Excel 2007 to integrate with Share-A-space® helps to ensure that non-technical users can view complicated information in a familiar format.”

Share-A-space® also integrates seamlessly with suppliers’ product data management and enterprise resource management systems such as SAP. Within BAE Systems Hägglunds, the technology works with existing product support solutions. Johansson says: “Microsoft BizTalk Server 2004 securely controls the transfer of files, such as work orders, to and from disparate systems.”

## Benefits

Share-A-space® accelerates the process of implementing engineering changes across partnering organisations without compromising security. It helps ensure that

no user has to work from an out-of-date model or incorrect configuration. “We won the Swiss contract over many other firms due to the sophisticated modification services we could offer,” says Ljung. “Share-A-space® is important, because it means that we can manage large projects, such as the delivery of 185 vehicles, efficiently.” In addition:

- The elimination of paper-based processes helps ensure engineers are using the right version of plans. They can accelerate changes and eliminate the potential for errors and delays.
- With Share-A-space®, BAE Systems Hägglunds can build new business partnerships that would not have been possible without mature, integrated collaboration technology.
- The solution complies with defence security requirements, supporting the seamless transfer of information without the need for Internet-based systems.
- When changes are approved, Share-A-space® automatically notifies all relevant users, and transfers technical specifications through a subscription service.
- The solution helps to drive new revenue streams through after-market services.
- The system adds value for customers because BAE Systems Hägglunds can now offer them a detailed repository of maintenance information.
- The company has cut engineering change approval times from weeks to days.
- The company has since won a major contract to supply similar infantry fighting vehicles to the Dutch armed forces. “Our use of Share-A-space® helped us to negotiate the Dutch deal,” says Ljung.