AEDIS IN THE KOREAN F-16 FIGHTER PROJECT

The KFP (Korean Fighter Project) was a Korean Government technology project that acquired the services of Samsung Aerospace, the nation's largest aircraft manufacturing company, and various Korean companies to build the F-16 Fighter Jet with General Dynamic's technological assistance and materials.

The enormity of the KFP project required the efficient management of millions of documents and technical drawings in the form of an Information Management Solution. In 1994 when Samsung began work on the Korean F-16 fighter development program, it was InterLinear Technology's Agile Electronic Distributed Information Solution (AEDIS) that provided an Engineering Drawing Management Solution and a Technical Document Management Solution, both to be managed under an Optical Filing System. This enabled U.S. plans and specifications to be converted into an easily portable Korean format and thus created the first large-scale production project in a paperless environment.

This program was a mission critical, national defense scenario that affected not only the Samsung and the Korean National Defense but also that of its suppliers, contract partners and international allies. More significantly, it had a direct effect on the well being and peace of mind of Korean citizens. Production delays due to out-of-date, inaccurate or duplicate information could potentially cost millions of dollars and risk the lives of many people.

AEDIS was responsible for managing the drawings and documentation of all engineering data for the project. AEDIS was designed with an open system architecture and used an internationally recognized file format (ISO 8613, CALS Type II TRIF) to store and help manage the data. Samsung Aerospace Company used the AEDIS solution with its $CALS_1$ compliant data standards to ensure the reliability of Technical Data Interchange (TDI) between the parties involved in the production of a modern Korean F-16 jet fighter plane.

AEDIS also provided revision control mechanisms and secured data access operation over a Wide Area Network (WAN) for information exchange between two factory sites and had tight integration with a CATIA Computer Aided Design (CAD) system.
The government defense agency had direct access to the system over a remote link and could review the most recent changes of any part of the project and match progress with the development schedule. This solution saved weeks of time in an otherwise laborious and manual auditing environment. AEDIS supplied the latest information at any instant and was a crucial component for fulfilling the production schedule. It guaranteed:

- Regulatory compliance requirements
- Instant, secure access to the most up-to-date information
- Unified storage and common access to all different types of information

The First Wide Area Network (WAN) CALS Project in Korea was a Resounding Success. This was a national level CALS success story. The technology developed through the Korean Fighter Program will provide the basis for a mature aircraft industry in Korea. The Korean Fighter Program is supplying advanced fighter jets as the main strength of Korea's air forces.

AEDIS has helped Samsung Aerospace save over $4.5 Million since it was installed. It has strengthened combat readiness, provided follow-up support capabilities and sophisticated technology, which has benefited Korea’s entire aerospace industry and its entrance into the 21st Century.

1 CALS, Continuous Acquisition and Life-cycle Support, is a strategy for enterprise integration, involving data integration and business process reengineering. Using a set of International and industry-driven standards, CALS achieves efficiencies in production, procurement, and operation. CALS began in 1985 in the U.S. Department of Defense (DoD) to improve productivity and reduce lead-time for military weapons procurement by sharing technical and business transactions information electronically. Since that time it has grown to become synonymous with enterprise integration and electronic commerce for commercial industry segments that range from aerospace to power generation, as well as defense. Commercial CALS, also known as Commerce At Light Speed and CALS/EC (CALS Electronic Commerce) is being implemented in practical ways in U.S., Japan, Korea, China, France, the United Kingdom, Sweden, Canada, Singapore, and Australia, as well as NATO.

Figure 1. AEDIS Installation at Samsung Aerospace Korean F-16 Fighter Project

Figure 2. AEDIS Samsung Aerospace Installation