

CASE STUDY

COBOL, Assembly, C – Array – ILS-S

COBOL, C, & Assembly to Java on AWS U.S. Air Force Integrated Logistics System – Supply (ILS-S)



CLIENT

U.S. Air Force

SOFTWARE

Integrated Logistics System - Supply

LANGUAGE PAIRING

COBOL, C, Assembly to Java

COMPLETION TIME

4 months

OVERVIEW

The U.S. Air Force uses the Integrated Logistics System – Supply (ILS-S) as a mainstay of its supply chain.

Originally deployed in the 1960s, the ILS-S, nicknamed “The Beast,” was composed of legacy languages like Unisys COBOL and Assembly. Modernization would allow the USAF to reduce costs surrounding both maintenance and use of this mission-critical software.

The application’s 1.3 million lines of COBOL, plus smaller numbers of C and Assembly, needed to be transformed

into a modern language such as Java, then realized the architecture needed to be migrated to the AWS cloud. The Air Force’s tight modernization schedule would have made a manual or partially manual transformation very difficult.

RESULTS

TSRI was able to successfully transform and refactor the legacy languages to Java and migrate the mainframe architecture to the AWS cloud. The SBSS system is now fully deployed. The Air Force received an end-to-end solution for a mission-critical legacy application in a very low-risk and efficient development, testing, and deployment environment. The code transformation rules created in TSRI’s JANUS Studio® automated solution have been reused in subsequent projects, which has major implications for other large Air Force systems written in COBOL.

WHY MODERNIZE WITH TSRI?

- **Migrate to the AWS cloud.** TSRI’s automated transformation and refactoring solution targets cloud services.
- **Preserve business logic.** A model-based approach preserves the source business logic.
- **Reduce code freeze to as little as a few days.** Automation enables continued development and baselines can automatically be taken at any time.
- **Improve code quality.** Pattern-based refactoring applied to the entire code base improves code maintainability, reduces technical debt, and remediates security flaws inherent in legacy code.
- **Save money.** Near-100% automation permits economies of scale when modernizing larger applications while supporting fast and cost-effective customization of a single project.

HIGHLIGHTS



Near 100% Automation



Low Technical Risk



Modernized to AWS Cloud



SOFTWARE MODERNIZATION ASSURED

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