

GAMS/CPLEX Modeling and Optimization software

VENDOR: GAMS Development Corporation

SOLE SOURCE JUSTIFICATION

1. A BRIEF DESCRIPTION OF THE INTENDED USE OR APPLICATION (FAR 6.303-2):

This requisition is for the GAMS(General Algebraic Modeling System) and linked CPLEX Solver software in support of a Military Sealift Command (MSC) scheduling project.

2. THE CRITICAL OR UNIQUE FEATURES WHICH ARE MANDATORY IN ITS INTENDED USE OF APPLICATION THAT LIMIT THEIR AVAILABILITY TO A SINGLE SOURCE. THE NECESSITY FOR THESE FEATURES SHOULD BE CLEARLY INDICATED. MINIMUM ESSENTIAL REQUIREMENTS MUST BE STATED (FAR 6.303-2):

Optimization modeling language with capability of being directly integrated with the CPLEX solver and Fortran.

Capable of utilizing at least 12 GigaBytes of system memory in a 64 bit operating system for generating and solving the model.

Capable of efficiently generating and solving very large mixed integer optimization models in real time.

3. A STATEMENT THAT NO OTHER KNOWN PRODUCT POSSESSES ONE OR A COMBINATION OF ALL THE REQUIRED CRITICAL FEATURES. THIS STATEMENT SHOULD ELABORATE ON THE STEPS WHICH LED TO THE CONCLUSION THAT ONLY A PARTICULAR SOURCE OR PRODUCT CAN MEET THE REQUIREMENT (I.E., MARKET SURVEY, INVESTIGATION OF SOURCES (FAR 6.303-2)

The Optimization group in the Operations Research Department is familiar with virtually every modeling software and solver available in the commercial market place and have benchmarked the capabilities of the best-known products and only the GAMS/CPLEX combination is capable of meeting the requirements for the intended project with MSC. There is no alternate provider known.

4. THE EXISTENCE OF PATENENT, COPYRIGHT OR LIMITING FEATURES:

The GAMS corporation holds a copyright for the GAMS compiler and IBM holds a copyright for the CPLEX solver.

TECHNICAL AND REQUIREMENTS CERTIFICATION. I certify that the facts and representations under my cognizance which are included in this justification and which form a basis for this justification are complete and accurate.