U.S. Department of Transportation Federal Aviation Administration Logistics Center

Statement of Work

Software Maintenance & Modifications for Warehouse Management System (WMS)



Prepared by FAA Logistics Center Information Systems Group (AJW-L300)

Table of Contents

1.0	Introduction and Background	3	
	1.1 RIMS Description	3	
	1.2 Progress Software	3	
2.0	Scope of Work		
3.0	Description of Tasks	4	
	3.1 RIMS Software Maintenance	4	
	3.2 RIMS Software Releases	4	
	3.3 RIMS Source Code Updates	4	
	3.4 Progress Software Maintenance for RIMS Production, Test, and Development Servers	4	
	3.5 Progress Software Maintenance for RIMS Disaster Recovery Server	5	
	3.6 Software Modifications and Consulting Services	5	
	3.7 Help Desk Support	6	
	3.8 Additional Services	7	
4.0	Licenses	9	
5.0	Other Work Requirements	9	
	5.1 Training	9	
	5.2 Communications	9	
	5.3 Section 508 Compliance	9	
	5.4 Security	10	
	5.5 Project Management	10	
	5.6 Personnel	10	
6.0	Travel	10	

1.0 Introduction and Background

The Federal Aviation Administration Logistics Center (FAALC) is currently undergoing initiatives to improve FAALC efficiencies and substantially raise performance, improve customer service and reduce costs. One such project was the installation in April 2006 of a Warehouse Management System (WMS) centrally located at the FAALC in Oklahoma City, Oklahoma. FAALC uses WMS to fulfill its mission to supply assets to the NAS to keep FAA equipment operating. WMS was a sizeable time and dollar investment that must now be supported through the rest of its operating life cycle. The WMS disaster recovery site is in Atlantic City, New Jersey and is considered part of the FAALC for purposes of this SOW.

WMS manages FAALC Distribution Center warehousing/inventory activities, and interfaces with the Logistics Center Support System (LCSS) to requisition, receipt, and inventory assets and services. The LCSS interface requires WMS to be modified to allow for new and modified transactions and possibly new infrastructures and processes that directly impact the WMS core processes. Both LCSS and WMS are mission support systems that are required to provide assets needed to support the National Airspace System (NAS). These assets keep equipment operating such as air traffic controller equipment and radars at hundreds of airport.

Robocom provided the major software application used for WMS known as Robocom's Inventory Management System (RIMS). RIMS is a proprietary commercial-off-the-shelf (COTS) application that was modified at FAA's request to meet the business requirements of the FAALC. Robocom then modified RIMS extensively to meet NAS Vulnerability Initiative and FAALC specific warehousing requirements. RIMS interfaces with the FAALC Logistics Center Support System (LCSS) and is used for ordering of assets, reporting status of customer orders, purchase order receipts, inventory adjustments, and file maintenance transactions.

Providing LCSS support in RIMS is a natural progression of this software application to continually improve the accuracy, reliability, distribution and tracking of assets that support the NAS. This Statement of Work (SOW) is for software maintenance and modifications for WMS.

1.1 RIMS Description

RIMS is a flexible, cost-effective, WMS that integrates with leading front-end business systems and provides supply chain visibility critical to success in today's global marketplace. RIMS operates in an open system environment and interfaces with customer's existing information systems infrastructure. Designed to maximize productivity and streamline warehouse operations, RIMS offers an easy and effective method of monitoring the flow of material in and out of a warehouse and ensures high levels of accuracy.

RIMS is a user-friendly, menu-driven application designed to satisfy the requirements of virtually any warehouse operation, from simple paper-driven systems to completely wireless environments. As a browser-based system operating on a variety of platforms, RIMS is an easily maintained application incorporating the latest technology. RIMS also integrates with external material handling devices to provide maximum control over warehouse activities. RIMS provides a return on investment, cost savings and increased productivity. A RIMS implementation project provides complete warehouse functionality in a standard, state-of-the-art product.

1.2 Progress Software

RIMS was developed using Progress (short for Progress Software Corporation) COTS software, which requires separate licenses, new software releases and help desk support. As a Premier channel partner, Robocom provides support for Progress to its end users directly.

2.0 Scope of Work

The contractor must provide the following products and services:

- o RIMS software maintenance
- o RIMS source code updates
- Progress software maintenance for RIMS production, test, User Acceptance Testing (UAT) and development servers
- o Progress software maintenance for RIMS disaster recovery server

The contractor must provide WMS software maintenance and modifications as specified herein. The WMS covered under this SOW is the real time WMS as custom modified and installed for the FAALC by Robocom and includes ongoing changes made to the FAALC WMS. Software source code, and software modifications delivered by the contractor must work seamlessly with the rest of the FAALC WMS. FAA must have the right to test, inspect, determine acceptance, and request changes to the Contractor for resubmission. FAA actions in this regard will be in context with SOW requirements, the contract and industry best practice.

3.0 Description of Tasks

Contractor must provide the products and services as described below.

3.1 RIMS Software Maintenance

Contractor must provide RIMS software maintenance for the FAALC production, test and development environments.

3.2 RIMS Software Releases

New RIMS software releases must be provided as they become available including software updates, upgrades, enhancements and patches (fixes). This is required for the RIMS base COTS software and custom modifications done to RIMS software by Robocom for the FAALC. This must include updated manuals and documentation that are normally provided with such software releases.

3.3 RIMS Source Code Updates

RIMS source code updates must be provided when new RIMS software releases become available including updates, upgrades, enhancements and patches (fixes). This is required for the RIMS base COTS software and custom modifications done to RIMS software by Robocom for the FAALC.

FAA acceptance of software is contingent on its meeting SOW functional/technical requirements, compliance with the Contractor's software design specifications and successful testing. Contractor must deliver machine-readable unencrypted source code. Source code must be submitted at the same time as its corresponding software is submitted unless authorized otherwise by the Contracting Officer's Representative (COR) or FAA Project Manager.

3.4 Progress Software Maintenance for RIMS Production, Test and Development Servers

Progress software maintenance must be provided for the FAALC WMS production site in Oklahoma City for the RIMS production, test and development servers. The types of Progress software to be covered follow:

- a. Client Networking
- b. OpenEdge App Server Enterprise
- c. OpenEdge Data Server for Oracle
- d. 4GL Development System

New Progress software releases must be provided as they become available including software updates, upgrades, enhancements and patches (fixes). This must include updated manuals and documentation that are normally provided with such software releases.

Contractor must diagnose problems by accessing, when necessary the FAALC Progress software, using a FAA approved secure virtual private network (VPN) connection or other FAA approved means of connection. Contractor must repair or resolve the problem remotely if possible.

3.5 Progress Software Maintenance for RIMS Disaster Recovery Server

Progress software maintenance must be provided for the FAALC WMS disaster recovery site in Atlantic City for the disaster recovery server. The software maintenance must be to the same extent as described for the production site in the preceding SOW section.

3.6 Software Modifications and Consulting Services

The FAA will provide the contractor a separate statement of work (SOW) for each identified task and request a proposal from the contractor which will be Firm Fixed Price to include Cost, Labor Categories, Labor Rates, and Labor Hours. Contractor must submit proposals within ten business days of receiving the SOW from the FAA Project Manager. Contractor must provide updated on-line User Guide and help documentation for each task in the SOW. Each SOW proposal will be negotiated through the Contracting Officer. Contractor must not begin performance prior to receiving an order for the identified tasks within the SOW. Labor categories to be provided include but are not limited to: Senior Analyst, Senior Developer/Architect, Tester and Technical Writer.

3.6.1 Approach to Software Modification Tasks

Contractor must use the following approach to work software modification tasks, unless authorized otherwise by the COR or FAA Project Manager

- **a.** Meet with FAALC stakeholders and users to determine in more detail the desired system requirements for each software modification.
- **b.** Analyze the desired system requirements within the framework of the current WMS software and develop the system architecture based on this analysis and the architectural guidance of the Infrastructure Support group of AJW-L300.
- **c.** Design the new software modification task solution that must be a written high-level software design specification document of the proposed solution. This document must be emailed to the FAA Project Manager for review and approval.
- **d.** Discuss the proposed solution with FAALC Subject Matter Experts (SMEs) and make revisions based upon approval of the FAALC COR or FAA Project Manager.
- **e.** Upon receipt of approval from FAALC COR or FAA Project Manager, design, execute and test the software modifications necessary to deliver the required solution.
- **f.** Submit all SOW software, source code, test plans, test results and updated on-line WMS User's Guide to the FAA Project Manager.
- **g.** Provide help desk phone support of testing and implementation of the software modification task solution by the FAALC.

3.7 Help Desk Support

Contractor must provide help desk support to any FAALC Information Systems Group (ISG) technical personnel requesting it for their product RIMS, Progress, and any other supporting software provided as a component of their product. This is required for the RIMS base COTS software and custom modifications done to RIMS software by Robocom for the FAALC. Help desk support must be provided during standard hours of operation 8 hours per day, 5 days per week, including scheduled maintenance activities that must be performed outside of standard hours of operation. Standard hours of operation for the FAALC are from 8:30AM to 4:00PM Monday through Friday excluding holidays. After hours support lines can be used to obtain support outside of standard help desk hours. FAALC requests may be made by telephone, email, facsimile and mail.

Contractor must diagnose problems by accessing, when necessary the FAALC RIMS, using a FAA approved secure virtual private network (VPN) connection or other FAA approved means of connection.

3.7.1 Help Desk Support Priority Performance Criteria

All inquiries made to the Contractor help desk must be handled according to the following priority criteria. However, Contractor must work tasks in an order different from that in which they are received by Contractor, if the FAA Project Manager or COR requests a different prioritization. Contractor must also provide written or verbal status reports of help desk tasks when requested by the FAA Project Manager or COR.

The help desk must be manned by numerous technicians, and have separate phone lines and a separate email address. Contractor support technicians must carry state-of-the-art cell phones so that customers can promptly discuss the problem with a qualified person. Support technicians must be able to dial into customer systems from home.

Priority	Description	Service Performance
All Inquiries	Applies to all inquiries (calls, emails, faxes, etc.)	Upon receipt, all inquiries must receive an initial investigation that may include getting back in touch with the end user to further refine/define the problem. Issues that are deemed as high priority (see below) are dealt with immediately; others are addressed as warranted. If a programming fix is required, then a Problem Action Report (PAR) is entered in Contractor's internal system, the program is fixed and tested, and when possible the fix is sent to the customer/end user. (This fix is also then part of the next patch so that all customers/end users benefit from the fix.) Depending on the severity of the problem, the turn-around for such problems can be immediate to several days. It is also possible that if a programming fix is required and the end user is using an old version of RIMS, the Contractor may decide that the fix will only go into the current version of RIMS. In that case the customer/end user is so informed with a recommendation for upgrade.

High	A major fault in a key function in the Basic Software or custom modifications done to RIMS software by Robocom for the FAALC that causes an end user to lose key processing. This could mean the end user site is down, the RF sub-system is down or a key operation (receiving, picking, etc.) is not operational.	As soon as the Contractor is made aware of such a situation, a support analyst immediately begins to tackle the problem. For example, if a live site is down, this is considered the highest priority and someone will work on the problem until it is solved. If necessary technical support from the Contractor staff is immediately enlisted to identify and correct the problem, no matter what the time of day or night. The work effort does not stop until the problem is solved or a work- around is provided. For example, if there is RF hardware failure then the Contractor might step the customer/end user through the RIMS paper back-up process.
Medium	The Basic Software or custom modifications done to RIMS software by Robocom for the FAALC appears to be causing a problem, but the end user is able to continue to operate. This may be an interface problem or a software configuration issue. This may also mean that "normal" functionality as the end user knows it is not working, but an alternate approach could be used in the interim.	Such inquiries should not be made during off hours, and are usually handled via email/fax to the Contractor's help desk. Initial contact is used to gather as much information as possible. Often these problems can be easily solved. If the end user can continue to operate and further research is needed then that call goes into the follow-up queue for a later time, usually by the next day. Medium priority issues are followed up on in the order that the Contractor receives them. All attempts are made to get back to the customer/end user during the next Contractor work day. The support analyst will dial into the end user site in an attempt to diagnose the problem. If the issue is a configuration issue then the support analyst can call the customer/end user and let him know the problem and offer alternative suggestions so that the problem does not recur.
Low	A misunderstanding in the Basic Software or custom modifications done to RIMS software by Robocom for the FAALC that rarely is a programming issue, but more often requests for information. Sometimes these calls are "how to's" and sometimes they are "what if's".	Such issues should usually come to the Contractor help desk via email or fax. These issues are often answered on the spot or if they come in at night on the next workday. If follow-up is required (because dial in has to take place or more important issues are currently being handled) then these issues too are followed up in the order that the Contractor receives them. Sometimes these issues spur cosmetic changes which then become part of the next patch or release. If a low priority issue involves a programming fix then it usually is the kind that is not sent out immediately but rather included in the next patch. If the issue is not being addressed at this time, then the customer/end user is so informed.
Enhancements	A new or revised feature that in the opinion of the end user would benefit their use of the Basic Software.	This must be forwarded to Contractor management for consideration for inclusion in a future version.

3.8 Additional Services

3.8.1 The Contractor must provide the following:

a. Upon receipt of a request for service, the Contractor must attempt within half a business day, or 4 hours, to access the System remotely in order to diagnose the source of the operating problem and, if possible, repair or resolve the problem without an on-site service call. If the Contractor determines that a service call to the Service Site is required, the Contractor must dispatch a technician to the Service Site within. The Contractor must advise the FAA of any other potential problems which may require service which the Contractor detects while diagnosing or servicing the System.

- **b.** If the Contractor determines that the problem relates to the Basic Software or the custom modifications done to RIMS software by Robocom for the FAALC, the Contractor will recommend suitable corrective steps and, upon FAA consent, implement those steps to correct the problem. If the Contractor determines that the problem relates to Robocom provided Equipment or Robocom provided Purchased Software, the Contractor will pursue the resolution of the problem, which may include contacting the relevant third party vendor, subject to any limitations imposed by such vendors on the warranties or other remedies which they provide.
- **c.** During the term of this contract, the Contractor must provide all upgrade releases for the Basic Software as they become available. Installation of upgrade releases remains the sole responsibility of the FAA. As maintenance and upgrade releases to any Contractor provided Purchased Software becomes available, the Contractor must evaluate the potential impact of the Purchased Software Release as it relates to the operation of the Basic Software (as modified by any Basic Software Releases) and report to the FAA with the Contractor's conclusions. If this report concludes that significant adjustments will be required to the Current Basic Software if the Purchased Software Release is installed, then upon the FAA's request, the Contractor must provide the FAA with an estimate of the costs of such adjustments. If the FAA agrees to pay those costs, the Contractor will make such adjustments and install the release at the Contractor's normal hourly charges.
- **3.8.2** The Contractor's obligations to provide services are subject to the following limitations:
- **a.** The FAA agrees to notify the Contractor in advance of any and all environmental/infrastructure configuration, file system, or other changes that the FAA wishes to make to the System. Upon receipt of such notification the Contractor will promptly review the impact such changes may have on the Basic Software or the custom modifications done to RIMS software by Robocom for the FAALC. Upon completing the review the Contractor will provide the FAA with advice regarding how to perform such changes so as to minimize any adverse effect on the Basic Software and upon the Contractor and FAA's mutual agreement as to Contractor's fee to implement such changes, the Contractor must provide the FAA with any necessary adjustments to the Basic Software and or custom modifications done to RIMS software by Robocom for the FAALC. If the FAA effects a change to the Software and/or Equipment without first obtaining Contractor approval, any maintenance or support services which become necessary as a result of the change will not be covered by the Support Fees and the Contractor will have no obligation to provide such services. If requested thereafter by the FAA, the Contractor will review the FAA changes under this Statement of Work and (if the FAA agrees) proceed to address any necessary adjustments.
- **b.** This Statement of Work does not cover any damages (including but not limited to: business interruption, loss of data, failure to meet any duty) that result from the failure of Equipment or Software that was not provided by Robocom or its partners. At the FAA's request, The Contractor will support these types of issues on a time and material basis should the need arise.
- **c.** The FAA agrees to provide remote access to the system running the Basic Software. If the FAA does not provide remote access, fees and other charges for services incurred, including time incurred to identify the issue, will be Contractor fees and charges in effect at the time of performance.
- **d.** If repair or replacement of defective Equipment is necessary, the FAA will be responsible to remove and ship the defective Equipment to the Contractor (or elsewhere, as the Contractor may direct). Upon receipt of the defective Equipment, the Contractor will pursue with the manufacturer on FAA's behalf the repair and or replacement of the defective Equipment, subject to the terms of the vendor's warranties. If the vendor imposes any charges for repair or replacement of defective Equipment, the FAA will be responsible for those charges. The Contractor will return the repaired or replacement Equipment to the FAA at the Service Site, or any other location mutually agreed to. The FAA will be responsible for reinstalling the repaired or replacement Equipment.

e. The FAA will provide the Contractor's technicians who visit the Service Site to effect service, at no charge, ready access to the Software and/or Equipment (subject to FAA's standard industrial security rules and policies) and adequate working space, light, heat, ventilation, electrical current, and outlets.

4.0 Licenses

Contractor must provide software licenses and source code licenses for all software manufactured by the Contractor under this contract. Contractor must provide FAA with Oklahoma City metropolitan area-wide, unlimited site licenses. This must also include the WMS disaster recovery site in Atlantic City or elsewhere if that location changes.

Contractor will provide all required third-party software licensing upon approval from the COR or FAA Project Manager as FAA requires for application testing and deployment.

The licenses must include a perpetual right for FAA to use and modify the source code subject to the following conditions. "FAA" in the preceding sentence means FAA government employees, and AJW-L300's MMAC support staff contractors. FAA must not disclose source code to other than these personnel.

5.0 Other Work Requirements

The contractor must meet the following requirements:

5.1 Training

Contractor must provide user training and corresponding documentation to FAA personnel for all software modifications completed in this Contract. As specified by the FAA, Training must be conducted either via telecom or at the FAALC located in Oklahoma City with optional field site training at locations specified by the FAA Project Manager.

5.2 Communications

Contractor must specify to the Contracting Officer, Contracting Officer's Representative (COR) and FAA Project Manager, their primary management level point of contact (POC) for resolving management related items. The contractor must work with the FAA as a team within the requirements of the contract. Contractor must maintain open communications with the FAA particularly with the Contracting Officer (CO), COR, FAA Project Manager and FAA subject matter experts (SMEs). Contractor must use information and input provided by the FAA to perform SOW tasks. Contractor must provide written and verbal work statuses when requested by the CO, COR and FAA Project Manager. Contractor communications with FAA must include but are not limited to the following: documents using Microsoft Office applications, teleconferences, electronic mail, telephone, and facsimile.

5.3 Section 508 Compliance

All products and services provided by the Contractor must meet the Electronic and Information Technology Accessibility Standards (36 CFR Part 1194) to comply with Section 508 of the Rehabilitation Act of 1973. Contractor must comply with the 1194.21 standard.

Contractor must comply with:

- a. FAA security suitability investigation requirements for Contractor personnel toaccess FAA information systems
- b. Accessing WMS remotely using FAA approved secure means of connection
- c. Not revealing information the Contractor may become privy to that FAA considers sensitive in nature, to anyone other than those with an authorized need to know

5.5 Project Management

The Contractor must provide program management support to perform identified tasks efficiently, accurately, on time, and in compliance with the requirements. The Contractor must participate as a member of an FAA led team. The Contractor must participate in a Kick-Off meeting between the FAA, COR, and Contractor to review SOW requirements and understand work scope and deliverables.

Contractor must promptly advise the COR or FAA Project Manager of issues placing this project or a given task/subtask at risk in areas such as, but not limited to cost, schedule and performance. Contractor must work with the Contracting Officer (CO), COR and FAA Project Manager to resolve any and all project issues.

5.6 Personnel

Contractor must provide personnel with the appropriate skills to successfully complete all required tasks. Contractor must assure that persons employed on this contract possess the required skills and are assigned duties consistent with the job classifications for which they are employed.

6.0 Travel

The contractor may occasionally be required to travel to attend meetings, or provide training.

The contractor must submit travel requirement, request, and estimate for approval. The Contracting Officer will authorize travel at the time the delivery/task order is issued, and before travel costs can be charged as a direct contract cost.

Contractor must separately identify all travel related expenses claimed for reimbursement, by each trip and each employee. The contractor must submit receipts of actual purchase price for commercial transportation, lodging, rental car, baggage fees and any other travel related items.

Unless directed otherwise, in writing, by the CO or COR, all travel expenses must be billed and paid IAW Federal Travel Regulations (FTR) and Acquisition Management System (AMS) clause 3.3.2-2 Reimbursement for Travel and Subsistence. Travel claims must be reimbursed at actual cost.