Balmer Lawrie & Co. Ltd

LOGISTICS INFRASTRUCTURE

EXPRESSION OF INTEREST IS INVITED FROM LEADING VENDORS FOR PROVIDING A TOTAL SOLUTION ON "Turnkey Project" basis for supply, installation, design & development of web-enabled application software, hosting; licensing, integration of all data, and system components where practicable; implementation and maintenance of necessary hardware; operating system; a relational database management system (RDBMS) and the off-the-shelf software required **for a comprehensive "CONTAINER TRACKING MANAGEMENT SYSTEM".**

Balmer Lawrie & Co. Ltd intends to setup a comprehensive **'CONTAINER TRACKING MANAGEMENT SYSTEM" (CTMS)** for monitoring and tracking of containers within its container yards located at Mumbai, Kolkata and Chennai. In this regard Balmer Lawrie & Co. Ltd invites "Expression of Interest" from leading vendors of repute to provide an end-to-end solution for building the said project on a total turnkey basis.

The primary objective of the project is to have a web-enabled, real time Container Tracking and Monitoring system to track container movement and location inside the Co's yard from entry to exit.

Balmer Lawrie & Co. Ltd desires to implement **CONTAINER TRACKING MANAGEMENT SYSTEM" (CTMS)** that will provide with:

- Track the actual location (3 dimensional) of container inside yard from entry to exit.
- Web enabled solution to provide the customer information about the status of container on real time basis.
- To integrate with the operational package.
- To develop customized MIS.

Software Vendor Specifications:

The software vendor should have proven track record in implementing "Container Tracking and Monitoring Solution" (CTMS) and be able to program, manage the entire solution implementation for a CFS and recommend appropriate hardware vendors if required. The vendor shall provide the relevant hardware requirements and software requirements including respective costs from the hardware partner/vendors. Overall, the vendor must satisfy the minimum experience requirements as set out here under:

1. The vendor must have SEI CMM Level 5 Certification, ISO 9001:2000 Certification.
2. The vendor must have adequate domain expertise demonstrated by at least one commercial implementation of a container tracking and monitoring system at CFS in India
3. The vendor to certify that implementation team possess adequate knowledge of Container Freight Station operations and its management
4. The vendor should have references for at least one such project from any port or reputed CFS in India/abroad.
5. The vendor should have an average annual turnover of at least Rs. 50 Crores during the last two years i.e., for the F.Y. 2006 – 07, & F.Y. 2007 – 08.
6. The selected Solution provider shall be responsible for identifying and should be capable of providing the hardware vendors for (RFID, GPS, GSM/GPRS) and Geo-referencing survey vendors and possessing unique working experience of delivering such container tracking solution in India.
7. The vendor shall provide full details of its partner hardware vendor (RFID,GPS,GSM/GPRS) and Geo-referencing service provider. These two sub-vendors should have demonstrated capability at any port or CFS in India/abroad and their understanding of port/CFS operations, and equipment such as Reach Stacker and Gantry Cranes etc.
8. The vendor shall be responsible for identifying the Geo-referencing vendor and facilitating the Geo-referencing survey across the CFS terminal layouts using Differential GPS (DGPS) unit and deliver the CFS layout output in a GIS format with geo coordinates identified through its partner vendor. The extent of each Terminal will be as follows:
    a. Chennai CFS – 40000 SQM
    b. Mumbai CFS – 80000 SQM
    c. Kolkata CFS – 37000 SQM

    The Geo-referencing survey should include the entire layout in scope and be able to produce geo-coordinates across all the grid points of each container location on the ground as marked and painted in CFS layout. .
9. The selected vendor's Geo-referencing partner should have done similar work in environment similar to port/CFS operations in India and should be capable of delivering the output in a GIS format using DGPS and Total Station output.
10. The company reserves the right to place order directly on suppliers of hardware and geo-referencing service provider.
11. In case of Joint Venture (JV)/Consortium/partners, the lead member shall fulfill all of the above criteria on its own and program manage the entire CTMS implementation and its full rollout. The lead member should be the software solution provider. There should not be any change of lead member, subsequently after the award of the work till the completion of assignment in all respects.

12. The solution provider shall represent its hardware vendors and geo-referencing service provider in the rate negotiations and their value proposition in all future discussions.
13. The vendors shall execute a agreement with Balmer Lawrie & Co. Ltd. for the deliverables, warranty and post implementation support , and other back-up issues.

GPS Hardware Specifications:

1. Built in Dual GPS
2. Accuracy – Sub Meter CEP
3. GSM / GPRS – Class 10, device Class B, quad band
4. GPS Sensitivity - > -148dBm
5. GPS Channels – 16
6. GPS Antenna – External high sensitive
7. CPU – ARM7 Wavecom
8. OS – Open AT
9. DOTAII – Application download over the air
10. LED's – GPS, GSM, 2 SW Controlled
11. Power – 9 – 32V, 0.5 A
12. Embedded Linux operating System
13. 32 bit processor
14. Built in file data-logger
15. USB host support of memory stick
16. Store & forward architecture for memory loss
17. Indicator panel interface for diagnostics, power, card scan & network
18. IP 65 enclosure
19. RS232 connectivity to integrate with RFID reader

RFID Hardware:

The main components of the RFID hardware and its supporting equipments are:

A. RFID Reader
B. RFID Antena
C. RFID Metal Mounted Tags
D. Power Supply Unit with backup
E. Alarm/Status Indication Panel
F. IP65 Cabinets

SPECIFICATIONS:

Smallest, globally compliant UHF RFID Reader capable of high performance, security and cost/space/power efficiency and supports Plug 'N' Play with the Reach Stacker / Gantry Crane.

1. The UHF RFID passive tag used at a container should be read by the RFID reader whenever in a range less than 2 meters. This read range is not fixed for all the Reach Stackers / Gantry Cranes & shall be adjustable.

2. The reader should be able to read the tag ID from only one container.

3. The reader has a micro-controller chip to process the read data as input and to push the processed data with 8 bytes and two braces (in the format similar to "[12345678]") to the GPS unit through serial port.

4. RFID reader should have its own clock which resets itself after sending each dataset through the serial port

5. The frequency at which the "read" signal is sent to the reader's antenna should be configurable using its firmware settings. The duration for which the antenna reads should also be configurable.

6. Setting: The frequency of "read" trigger should be configurable starting from 1 second.

7. RFID module reader should have less memory footprint, smaller size and compact architecture. The size of the module reader should not exceed 60mm X 80mm X 8mm (h).

8. The power system should be able to provide backup upto 42 hrs.

9. The RFID module reader should be capable of transmitting tag data and alarm signals upto a distance of 350ft.

10. The chosen RFID tags are encapsulated in a weather-proof polymer which works in harsh conditions like high temperature, high humidity/rain and metal environment. The encased tag shall be rugged enough for durable use in an industrial environment.

11. The RFID Box should have IP65 Certification from government recognized third party lab. The Certification will be from Central Government Laboratory namely CPRI or ETDC who have the lab setup to conduct Ingress Protection (IP) tests & provide certification.

12. The RFID antenna gain should be configurable to adjust the range of the reader. The range can vary from 1 ft to 10ft. The antenna gain should be adjustable from 10dbi to 30dbi.

13. The reader should have special sleep mode function in which the Idle current consumption is only 5 mA.

14. The RFID reader should have support for GPIO pins which can be configured for specific purposes.

15. The RFID reader should be capable of integrating with different kinds of sensors and motion actuators to manage, monitor reads on specific events.

16. The power module should be able to provide protections from overload, over voltage and sudden spikes.

Interested vendors confirming the above requirements should furnish the following.

1. Company Profile
2. Write up on Company's experience as a provider for a TOTAL solution for establishing a "CONTAINER TRACKING MANAGEMENT SYSTEM" or a similar kind of undertaking.
3. Latest three years audited financial statements.
4. Expression of interest in the project.

The response along with the above required documents shall be delivered to the following address on or before – 04/05/2009 in sealed envelope superscribing "CONTAINER TRACKING MANAGEMENT SYSTEM."

Deputy Manager (Technology Initiatives)
Balmer Lawrie & Co. Ltd
LOGISTICS INFRASTRUCTURE
4th Floor
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Kolkata – 700 001

Please note that, Request For Proposal (RFP) shall be issued only to the short listed vendors for the requirements of Balmer Lawrie & Co. Ltd.

Balmer Lawrie & Co. Ltd reserves the right to accept/reject any or all expressions of interest received in response to this advertisement without assigning any reasons, whatsoever. Balmer Lawrie & Co. Ltd also reserves the right to alter the eligibility criteria for short listing the vendors.