Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012-2952

Metro

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OPERATIONS COMMITTEE
NOVEMBER 17, 2005

SUBJECT: CONSOLIDATED DATA WAREHOUSE MAINTENANCE AND ENHANCEMENT CONTRACT

ACTION: AWARD A CONTRACT FOR MAINTENANCE AND ENHANCEMENT OF THE SERVICE PERFORMANCE ANALYSIS CONSOLIDATED DATA WAREHOUSE

RECOMMENDATION

Authorize the Chief Executive Officer to award a five-year contract for maintenance and enhancement services of Operations' Consolidated Data Warehouses, under RFP No. OP31501747, to Strategic Data Systems, Inc., the highest rated proposer, in an amount not to exceed $2,926,000, inclusive of two one-year options.

RATIONALE

The Service Performance Analysis department maintains a consolidated performance-monitoring data warehousing system where large quantities of operating data from a variety of in-house systems are stored and queried regularly for information. There are currently seven functional systems:

a. *Automatic Passenger Counter (APC):* Data is collected at the stop level. The passenger activity, stop dwell time and bus location are among a host of data elements contained in the warehouse.

b. *Transit Operations Decision Support System (DSS):* This warehouse contains selected data elements from the majority of Metro's mission critical systems. Service delivery, operators' timekeeping, vehicle maintenance, vehicle accident monitoring and facilities maintenance are examples of Metro's mission critical systems that feed the Transit Operations DSS.

c. *Point Check / Load Factor:* Schedule checkers collect passenger activity at certain stops of every bus route for assessment of passenger loads for Consent Decree monitoring and compliance. The data are collected at the stop/location level. Bus arrival time, departure time and on-board loads are among a host of data elements contained in the warehouse.

d. *Rail Ride Check:* The data warehouse contains rail operations detail passenger activity and loads among a host of collected data elements.

e. *Trips In Motion System (TIMS):* Data warehouse containing the revenue service running times of all scheduled bus trips for an entire shakeup (i.e., booking or schedule) and all service types. The number of trips in motion, line number and operating division are among the data elements in the warehouse.

f. *TOTS Payroll/Accounting:* Warehouse used for transit operator activity costing. Earning codes, minimum time, pay time and amount, and unscheduled overtime are among the data elements in the warehouse.

g. *Flash Sheet:* Application system for automated weekly reporting of transit operations key performance indicators (KPIs). Tabular reports and graphic representation of KPI's, such as "Miles Between Road Calls," "Past Due Critical PMP Ratio," and "Traffic Accident Rate" are among the indicators monitored at division, sector and system levels.

All of the above systems require continuous maintenance. Databases require "fine-tuning," and as more data is accumulated, systems must be updated and data "cleansed." In addition, upgrades and changes to feeder systems and sources of data will require enhancements of the existing systems.

Currently, the following data warehouses are planned for development and implementation as part of the Consolidated Data Warehouse project:

a. *Universal Fare System (UFS):* Upon the successful implementation of the Universal Fare System, each patron's method of fare payment will be recorded throughout the entire bus system. The UFS data warehouse will be developed for fare media utilization analysis. Linked to the Automatic Passenger Counter (APC) data warehouse, the APC/UFS decision support tool will provide detailed, bus system level consumed service statistics containing fare media utilization.

b. *Route Schedule Adherence (RSA):* Using data collected by the Advanced Transportation Management System (ATMS) as feeder, the RSA data warehouse will be developed for detailed running time, schedule adherence and on-time performance analysis in support of bus system transit operations.

c. *Production Scheduling:* Primary repository for scheduling data feed from HASTUS scheduling system. The warehouse will be the primary tool for ad hoc query, reporting, analysis and graphing for schedule makers and schedule planners in support of their service delivery decisions.

d. *ATMS Subsystems Performance Monitoring (SPM):* Using data collected by the Advanced Transportation Management System (ATMS) as feeder, the ATMS/SPM

will be developed to monitor and report on the functionality and maintenance status of all ATMS onboard subsystems such as APC sensors and analyzers, GPS, etc.

e. *Line Performance Analysis:* This datamart will support the bus system's line level productivity analysis and patronage estimation for internal and external reporting requirements. It will be used to perform line level revenue, fare media utilization and patronage analysis in support of future fare structure modifications.

f. *Rail Fare Mix:* Using fare utilization data collected by schedule checkers as feeder, the Rail Fare Mix (RFM) Datamart will be developed for analysis and reporting of fare media utilization on the Metro Rail system.

g. *Orange Line Datamart (OLDM):* The OLDM will contain Orange Line detail passenger activity and loads, running times, dwell times and other operational data.

FINANCIAL IMPACT

The funding of $574,000 for the first year of this project is included in the FY06 budget in Cost Center 3150, Service Performance Analysis, Account 50316, Project Number 100030, Task Number 01.01.

Since this is a multi-year contract, the Cost Center Manager and Deputy Chief Executive Officer will be accountable for budgeting the cost in future years, including any options exercised.

ALTERNATIVES CONSIDERED

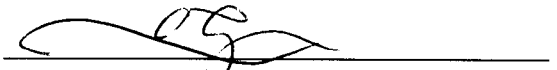
The only alternative to hiring an outside consulting firm would be to establish several positions that would oversee the maintenance and enhancement of existing systems, as well as the development, enhancement, and maintenance of the required additional systems. Because of the broad range of specific talents, experience and expertise required and the high salary demand those would impart, this option is currently considered less cost effective than hiring the recommended consulting firm.

ATTACHMENTS

A Procurement Summary
A-1 Procurement History
A-2 List of Subcontractors

Prepared by: Jake Satin-Jacobs, Manager, Operations Performance Analysis
Simon Guevrekian, Systems Manager, Service Performance Analysis
Robert Vasquez, Sr. Contract Administrator

FOR 
John B. Catoe, Jr.
Deputy Chief Executive Officer


Roger Snoble
Chief Executive Officer

BOARD REPORT ATTACHMENT A
PROCUREMENT SUMMARY

CONSOLIDATED DATA WAREHOUSE MAINTENANCE AND ENHANCEMENT CONTRACT

1.	Contract Number: OP31501747		
2.	Recommended Vendor: Strategic Data Systems, Inc.		
3.	Cost/Price Analysis Information:		
	A. Proposed Price: $2,986,340	Recommended Price: $2,926,000	
	B. Details of Significant Variances are in Attachment A-1.D		
4.	Contract Type: Labor-Hour Rate		
5.	Procurement Dates:		
	A. Issued: 08.18.05		
	B. Advertised: 08.24.05 & 08.25.05		
	C. Pre-proposal Conference: 08.31.05		
	D. Proposals Due: 09.20.05		
	E. Pre-Qualification Completed: 10.14.05		
	F. Conflict of Interest Form Submitted to Ethics: 10.19.05		
6.	Small Business Participation:		
	A. Proposal Goal: No goal recommended	Date Small Business Evaluation Completed: N/A	
	B. Small Business Commitment: N/A (Details are in Attachment A-2)		
7.	Request for Proposal Data:		
	Notifications Sent: 7	Proposals Picked up: 34	Proposals Received: 4
8.	Evaluation Information:		
	A. Proposers Names: Bottom Line Consulting PI Technology R-Systems Strategic Data Systems	Proposal Amount: $2,385,000 $1,363,400 $1,190,000 $2,986,340	Best and Final Offer Amount: $2,525,000 N/A N/A $2,926,000
	B. Evaluation Methodology: Weighted Factors (Details are in Attachment A-1.C)		
9.	Protest Information:		
	A. Protest Period End Date: 11.22.05		
	B. Protest Receipt Date: TBD		
	C. Disposition of Protest Date: TBD		
10.	Contract Administrator: Robert Vasquez	Telephone Number: 213-922-1044	
11.	Project Manager(s): Jake Satin-Jacobs Simon Guevrekian	Telephone Number: 213-922-4211 213-922-4562	

BOARD REPORT ATTACHMENT A-1
PROCUREMENT HISTORY

CONSOLIDATED DATA WAREHOUSE MAINTENANCE AND ENHANCEMENT CONTRACT

A. Background on Contractor

Strategic Data Systems, Inc. (SDS) is located in Manhattan Beach, CA and was founded in 1997. As a complete provider of business intelligence, data warehousing and end-user reporting solutions, SDS has unique qualifications and expertise and is specialized in providing solutions for BusinessObjects/Oracle-based application systems. The firm has worked on numerous Metro projects over the last 5 years with great success and excellent performance, including the following: Decision Support System, Flash Sheet, Rail Data Warehouse, Automatic Passenger Counter Data Warehouse, Transit Operations Trends System (TOTS) Payroll/Accounting, and Point Check/Load Factor Data Warehouse. The firm has also designed and developed major data warehouses for Kaiser Permanente, PacifiCare and AirTouch.

B. Procurement Background

This is a competitively negotiated procurement under RFP No. OP31501747. The base contract period is for 3 years, plus 2 one-year option periods, for a potential total of 5 years.

C. Evaluation of Proposals

This procurement was conducted in accordance, and complies with, standard Metro Procurement policies and procedures. Proposals were received from the following firms in response to the RFP: Bottom Line Consulting, PI Technology, R-Systems, and Strategic Data Systems. The evaluation criteria consisted of 3 major factors: Qualifications of Firm (20%), Qualifications of Staff (40%) and Price (40%). During its initial evaluation of proposals, the Source Selection Committee (SSC) determined that PI Technology did not meet the minimum qualifications identified in the RFP and was eliminated from further consideration. Upon further analysis and review of information requested for clarifications, and upon R-System's failure to supply additional requested information, the SSC subsequently determined that R-Systems should be eliminated from the competitive range. Both PI Technology and R-Systems could not adequately demonstrate that they possessed the requisite technical skill sets for this project, and were especially lacking in knowledge and experience with BusinessObjects/Oracle-based application systems.

The remaining proposers, Bottom Line Consulting and Strategic Data Systems were invited to be interviewed by the SSC. As a result of the interviews, a request for best and final offer (BAFO) was issued to both firms. Final scoring of BAFOs resulted in the highest overall score going to Strategic Data Systems, Inc.

D. Cost/Price Analysis Explanation of Variances

The award recommendation is being made to other than the lowest price offer on the basis that the recommended awardee, SDS, provides Metro with the best overall value when assessing all technical and price factors. It was determined that the 15.9% higher price proposed by SDS is more than offset by its technical superiority, and the recommended amount is only 2.5% higher than the Metro estimate. SDS clearly demonstrated that its proposed staff possesses greater knowledge and expertise in such critical areas as Business Objects/Oracle-based application systems and complex data warehousing solutions.

Based on the above, it was determined, through price analysis and an independent cost estimate, that the recommended amount is fair and reasonable, as all three price points are within a reasonable range based on adequate competition.

BOARD REPORT ATTACHMENT A-2
LIST OF SUBCONTRACTORS

CONSOLIDATED DATA WAREHOUSE MAINTENANCE AND ENHANCEMENT CONTRACT

PRIME CONTRACTOR – Strategic Data Systems, Inc. (SDS)

Small Business Commitment	Other Subcontractors
No goal recommended	None
Total Commitment = 0%	