County of Los Angeles
DEPARTMENT OF PUBLIC SOCIAL SERVICES
12860 CROSSROADS PARKWAY SOUTH · CITY OF INDUSTRY, CALIFORNIA 91746
Tel (562) 908-8400 · Fax (562) 908-0459

BRYCE YOKOMIZO
Director

LISA NUÑEZ
Chief Deputy

Board of Supervisors
GLORIA MOLINA
First District

YVONNE B. BURKE
Second District

ZEV YAROSLAVSKY
Third District

DON KNABE
Fourth District

MICHAEL D. ANTONOVICH
Fifth District

August 22, 2006

The Honorable Board of Supervisors
County of Los Angeles
500 West Temple Street
383 Kenneth Hahn Hall of Administration
Los Angeles, California 90012

Dear Supervisors:

RECOMMENDATION TO AUTHORIZE THE CHIEF INFORMATION OFFICER TO EXECUTE A SERIES OF WORK ORDERS WITH COGNOS CORPORATION FOR BUSINESS INTELLIGENCE SOFTWARE CONSULTING SERVICES
(All Districts - 3 Votes)

CIO RECOMMENDATION: APPROVE [X] APPROVE WITH MODIFICATION [ ] DISAPPROVE [ ]

IT IS RECOMMENDED THAT YOUR BOARD:

Approve and direct the Chief Information Officer (CIO) at the request of the Director of the Department of Public Social Services (DPSS or Department) to execute a series of Work Orders for consulting services under the County's Business Intelligence (BI) Software Services Master Agreement (Master Agreement) with Cognos Corporation (Cognos) for the development of a DPSS Data Warehouse for a maximum amount of $3 million. This is in accordance with your Board motion, dated May 9, 2006 approving $500,000 in initial funding to develop a prototype that proved the DPSS Data Warehouse to be successful in meeting the Department's business objectives, and report the results of the prototype back to the Board before additional funding is approved.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The data for the public assistance and employment programs administered by DPSS currently reside on a variety of different mainframe and stand-alone computer systems. These include systems internal to the Department as well as State-operated systems. DPSS is undertaking a major effort to revise the entire process of data extraction and report production from these different computer systems with the objective of developing a unified, comprehensive Data Warehouse. The Data Warehouse will accommodate data from all programs and operations administered by DPSS, expedite reporting on these programs and support the executive decision-making processes. CAO consultants recommended that the Data Warehouse project be provided with the necessary resources and support to ensure its timely completion.

As a result of your Board motion, dated May 9, 2006, a prototype was developed to demonstrate the value of the Data Warehouse in meeting the Department's business objectives. You approved an initial expenditure of $500,000 for the prototype, with full funding for the project contingent upon the successful implementation of the prototype and report back to the Board.

In accordance with these instructions, DPSS developed a prototype with the key objectives of improving timeliness of reporting, providing key departmental performance indicators, enhancing the department's capability to identify fraudulent overpayments, integrating data from disparate systems and facilitating departmental decision-making and management oversight.

The prototype includes operational and administrative data accessible via a web portal and effectively demonstrates the desired objectives of the project. Examples of Departmental reports that integrate data across systems, State mandated reports, ad-hoc analysis and key performance indicators are included. The ability to drill down from aggregate data to the individual unit level provides increases employee accountability. Drill through to detail capability permits views of both aggregate and detail data and allows users to detect case aberrations and potential fraud.

On July 12, 2006, the prototype was presented to your deputies, who found that the prototype successfully meets these objectives.

Implementation of Strategic Plan Goals

According to the Chief Administrative Officer, the Strategic Plan transforms the culture of the Los Angeles County organization. The Data Warehouse constitutes a major step forward, changing the focus of DPSS from simply ensuring that services are provided efficiently to measuring and reporting the outcomes of these services and their impact on program participants.

This initiative supports Goal 4, Strategy 2: to implement performance-based management decision-making processes based on Performance Counts! data. It also supports the organizational effectiveness objective of establishing a centralized business intelligence reporting infrastructure based on the County standard software.

BACKGROUND

On May 10, 2005, your Board approved a Master Agreement with Cognos for BI Software Services, which allows County departments to acquire consulting services for the development of reports, datamarts and dashboards that will provide departmental staff and management with accurate information for effective decision-making.

The Master Agreement offers a structure for acquiring needed services through a streamlined acquisition process that is standard across the entire enterprise. Under the Work Order issuance process, individual department heads have the discretion and accountability for their respective projects. Work Orders include deliverables specific to each project and, once executed under the Master Agreement, are entered into the County's Information Technology Tracking System.

The Data Warehouse project is envisioned to be completed in three releases over the life of the entire project. This Board Letter requests approval for the first release which includes the technical design and structure to support the data for the subsequent releases and ultimately comprise the entire Data Warehouse. Releases 2 and 3 will include remaining data from LEADER, GEARS, CMIPS, DPSSTATS, and other systems. Additionally, these subsequent releases will require less contractor resources as our staff are trained by the contractor, which will enable the Department to support this project. As such, the costs for these efforts will be significantly less with each release.

The total Data Warehouse project includes not only Cognos costs but also ISD hosting and equipment costs. This Board Letter requests funding for Cognos costs only. The ISD costs are included in our departmental budget and are approximately $900,000 to host the system and $1.4 million for ongoing annual support and maintenance.

FISCAL IMPACT/FINANCING

The costs for the Cognos Work Orders for the DPSS Data Warehouse project are estimated at a maximum of $3,000,000. The funds will be expended in FY 2006-07. Since there is a CalWORKs and a Food Stamps Maintenance of Effort (MOE) requirement, which will be met by the County, there is no net County cost (NCC) for these programs. The share of costs associated with programs such as In Home Supportive services and General Relief results in an estimated NCC of $255,000.

Upon your approval, funding will be requested in FY 2006-07 Supplemental Changes.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

The Master Agreement approved by your Board enables departments to utilize Work Orders for BI Software installation, consulting services, employee training, design assistance and expertise in the use of Cognos Business Intelligence technology. As required in the May 10, 2005 letter to your Board, Work Orders over $100,000 shall be directed to your Board for authorization.

Attached is the CIO Analysis of the Business Intelligence Work Orders with Cognos Corporation for the development of a DPSS Data Warehouse.

CONTRACTING PROCESS

The County and Cognos entered into a Purchase Order (PO) Software License Agreement on May 27, 2004 and a Master Software Services Agreement on May 10, 2005. The Department has acquired BI Software licenses under the Software License Agreement and is seeking to procure professional services under the Master Software Services Agreement for the development of the Data Warehouse.

IMPACT ON CURRENT SERVICES/PROJECTS

The Data Warehouse project creates a departmental framework that highlights measures critical to departmental success and provides the basis for managers to monitor results throughout the organization. Implementation of the Data Warehouse will enable comparison among offices, units and workers in the line offices and GAIN regions, as well as administrative staff operations, via self-serve access. This will allow the Department to bridge the gap between individual and organizational performance.

The end result of these endeavors will replace an ineffective data management and reporting system with a viable system that can be maintained and managed in the long term. Most importantly, it will provide more accessible, accurate and comprehensive data relating to DPSS programs and processes.

CONCLUSION

Upon approval, the Executive Officer, Board of Supervisors, is requested to return one (1) adopted stamped Board Letter and three (3) certified copies of the Board Order to the Director of the Department of Public Social Services.

Respectfully submitted,

DEPARTMENT OF PUBLIC
SOCIAL SERVICES

Bryce Yokomizo
Director

Reviewed by:

CHIEF INFORMATION OFFICE

Jon W. Fullinwider
Chief Information Officer

BY:JWF:jl

Attachment

c: Chief Administration Officer
County Counsel
Executive Officer, Board of Supervisors
Auditor-Controller
Chair, Information Systems Commission

CIO ANALYSIS

BUSINESS INTELLIGENCE WORK ORDERS WITH COGNOS CORPORATION FOR THE DEVELOPMENT OF A DPSS DATA WAREHOUSE

CIO RECOMMENDATION: ☒ **APPROVE** ☐ **APPROVE WITH MODIFICATION** ☐ **DISAPPROVE**

Contract Type:

☐ **New Contract** ☐ **Contract Amendment** ☐ **Contract Extension**
☐ **Sole Source Contract** ☐ **Hardware Acquisition** ☒ **Other**

New/Revised Contract Term: **Base Term:** 2 **Yrs** **# of Option Yrs** 0

Contract Components:

☐ **Software** ☐ **Hardware** ☐ **Telecommunications**
☒ **Professional Services**

Project Executive Sponsor: **Lisa Nunez, Chief Deputy, DPSS**

Budget Information :

Y-T-D Project Expenditures	$500,000
Requested Project Amount	$3,000,000
Aggregate Project Amount	$3,500,000

Project Background:

Yes	No	Question
☐	☒	Is this project legislatively mandated? No.
☒	☐	Is this project subvented? If yes, what percentage is offset? Approximately 92% of the cost of the project will be offset using the Department's public assistance funds originating from the State of California.
☐	☒	Is this project/application applicable to (shared use or interfaced) other departments? If yes, name the other department(s) involved? No.

Strategic Alignment:

Yes	No	Question
☒	☐	Is this project in alignment with the County of Los Angeles Strategic Plan? The Department's Data Warehouse Project supports the County's Strategic Plan Goal No. 4 for Fiscal Responsibility, Strategy No. 2 to implement performance-based management decision-making based on Performance Counts! data.
☒	☐	Is this project consistent with the currently approved Department Business Automation Plan? The project is identified in the Department's FY 2005-2006 and FY 2006-2007 Business Automation Plans.

Strategic Alignment, Continued

Yes	No	Question
☒	☐	Does the project's technology solution comply with County of Los Angeles I/T Directions Document? The Department's Data Warehouse Project complies with I/T Directions document by conducting government electronically to improve the delivery of services.
☒	☐	Does the project technology solution comply with preferred County of Los Angeles I/T Standards? The Department's Data Warehouse Project utilizes Cognos and Oracle, both County preferred products, for reporting and database design.
☒	☐	This contract and/or project and its milestone deliverables must be entered into the Information Technology Tracking System (ITTS).

Project/Contract Description:

The Department of Public Social Services (DPSS) is seeking your Board's approval for the Chief Information Officer (CIO) to continue its execution of a series of Business Intelligence (BI) Work Orders (WOs) with Cognos Corporation (Cognos) for a total maximum cost of $3,500,000 as provided for in the CIO's Business Intelligence (BI) Software Services Master Agreement (Master Agreement) with Cognos executed May 10, 2005. The WOs will assist DPSS in the development of a Data Warehouse that is needed for the full implementation of performance-based decision-making utilizing the Department's Performance Counts! data.

Your Board approved a motion on May 9, 2006 stating that $500,000 of the $3,500,000 would be released to the Department to construct a prototype of the Data Warehouse and release of the remaining funds of $3,000,000 would be contingent on the successful completion of the prototype. The Department has demonstrated a successful prototype to the Board on July 12, 2006. The Data Warehouse prototype provided information for generating metrics for DPSSTATS dashboard as well as reports required by the State of California, reports for analytical investigations and trend reports for DPSS executives.

The Data Warehouse Project is included in the Department's FY 2005-2006 and FY 2006-2007 Business Automation Plans. Funding for all but $298,000 of the $3,500,000 will be offset using the Department's funds originating from the State of California. The initial $13,000 of the $298,000 is included in the Department's FY 2005-2006 Adopted Budget and balance of $285,000 will be requested in FY 2006-2007 Final Changes.

Background:

In July 2004, DPSS was selected by the Chief Administrative Office (CAO) to be the initial County department for implementing a comparative statistical (CompStat) process as a strategy for improving the County's performance in the delivery of social services to its residents. DPSS has developed the data structure needed for incorporating Performance Counts! data into the Department's CompStat process, called DPSSTATS. In 2005, the Department deployed a DPSSTATS Business Intelligence dashboard application for displaying and analyzing the Performance Counts! data in its bi-monthly management meetings.

The information required for the DPSSTATS dashboard resides on numerous departmental and State-operated computer systems. DPSS, in the initial implementation of its DPSSTATS process, manually extracted the information from these computer systems and keyed the information into the data structure that provides the inputs for the DPSSTATS dashboard.

DPSS is now undertaking a major effort to revise its initial DPSSTATS process from one of manually extracting data from these computer systems to an implementation that would automatically extract and load the information into a data warehouse. The Data Warehouse would then provide the inputs for the visual display in the DPSSTATS dashboard and other departmental reporting and analysis.

Project Justification/Benefits:

The DPSSTATS process creates a departmental framework that highlights performance measures that are critical to DPSS' success and provides the basis for DPSS executives to monitor results throughout the Department. The implementation of the Data Warehouse will enable comparison among DPSS offices, units and workers in the line offices and GAIN regions, as well as administrative staff operations. The DPSS Data Warehouse which stores data from all DPSS programs and operations will also provide the following benefits:

- Information for the DPSSTATS dashboard and support for executive decision-making processes;
- Effective data management and reporting system that can be maintained and managed over the long term; and
- More accessible, accurate and comprehensive information management relative to DPSS programs and processes.

Project Metrics:

The Data Warehouse Project will be divided into phases in which a defined portion of the data from LEADER, GEARS, DPSS Item Control, the State of California's Case Management Information & Payroll System (CMIPS) and State of California's Child Care System will be incorporated into the data warehouse. Each phase will undergo the following processes:

- Developing requirements for the reporting and analysis that is desired from the Data Warehouse in concert with the end users of the system;
- Designing the data models to support the reporting and analysis requirements;
- Designing, developing, cleansing and testing processes to populate the Data Warehouse with data from the above sources;
- Developing reports in the areas of Intake, Caseload, Providers, Welfare to Work (WtW) and Staffing in order to meet the developed reporting and analysis requirements; and
- Performing data quality, data validation, unit, system, performance and applicable acceptance testing.

The first phase will utilize this series of BI Work Orders for its implementation as defined in the above processes. Each Work Order is a fixed priced contract between DPSS and Cognos for deliverables defined in the Work Order. As such, the County will have incremental value as each Work Order is completed and deliverables accepted. There is an emphasis on

knowledge transfer from the contractor's staff to County staff as the Data Warehouse is constructed such that subsequent phases will be implemented by County staff.

Impact On Service Delivery Or Department Operations, If Proposal Is Not Approved:

The impact on DPSS' departmental operations if not approved will be the continued inefficiencies of manually loading the information required for the DPSSTATS dashboard. The DPSSTATS process has proven to be of immense value to DPSS as they provide services to the County's residents and the automation of loading information into Data Warehouse for DPSSTATS will increase its value.

Alternatives Considered:

Initially, the data for the DPSSTATS dashboard was manually loaded into a database but this manual loading was found to be too labor intensive. DPSS is seeking to implement a Data Warehouse to automate the collection and storage of data for the DPSSTATS project. The Data Warehouse will also provide a platform for aggregating a larger set of departmental information and in-depth data analysis by the Department.

The Data Warehouse Project utilizes the business intelligence software standard as approved by the Board of Supervisors and represents the most effective and efficient method for acquiring and organizing the data needed for the DPSSTATS process.

Project Risks:

The Data Warehouse Project has the normal risks for system implementation. The Department has mitigated these risks by providing executive sponsorship, stable project staffing, clear roles and responsibilities, full-time project management, project plan and defined objectives. The project has a defined issue management process for resolving risk as they appear. The current risks that are being monitored are:

- End user availability for developing the requirements processes;
- Lack of LEADER, GEARS and DPSS Item Control interface documentation;
- Lack of California CMIPS and Child Care interface documentation;
- Continuity of outside project consultants; and
- Availability of training for DPSS staff.

Risk Mitigation Measures:

The project team is devising mitigation plans for each of the above risks and will continue to monitor these risks as well as other risks as they arise.

Financial Analysis:

The total series of Work Orders for Phase 1 including the Work Orders for the prototype encompass the following areas:

Develop requirements for the data warehouse	$280,000
Create the technical architecture for the data warehouse	$210,000
Design the logical and physical data models	$315,000
Cleanse the data from LEADER, GEARS Item Control, and CMIPS	$385,000
Design, develop and test data population processes	$1,225,000
Develop reports for the defined areas	$770,000
Perform data quality, validation, performance and acceptance testing	$315,000
New Contract Total	$3,500,000

DPSS is collaborating with the County's Internal Services Department (ISD) for hosting of the hardware server and applicable software within ISD's Mid-Range Branch and for hosting the Cognos business intelligence software tools within ISD's Customer Application Branch. The Department has dedicated staff for the support and maintenance of the business intelligence reports built for the data warehouse.

The total DPSS and ISD acquisitions and staff costs for building the DPSS Data Warehouse are estimated to be:

ISD's hardware/software acquisition costs for DPSS' data warehouse	$900,000
ISD's costs for hosting the Cognos business intelligence tools	$0
Set Up Costs Total	$900,000

The total yearly DPSS and ISD support and staff costs for maintaining the DPSS Data Warehouse are estimated to be:

ISD's estimated yearly support costs for hosting DPSS' data warehouse	$1,233,400
ISD's estimated yearly costs for Cognos business intelligence tools	$96,000
ISD's estimated yearly costs for other software maintenance	$87,500
Yearly Support Costs Total	$1,416,900

The DPSS Data Warehouse Project will have two additional developmental phases. The DPSS staff assigned to this project are receiving and implementing appropriate knowledge transfer as evidenced by their ability to provide updates to the DPSSTATS dashboard and their initial involvement and support of Phase 1 development. Subsequently, it is estimated that Phase 2 contractor costs could be reduced to approximately fifty percent (50%) of Phase 1 costs and Phase 3 contractor costs could be reduced to approximately twenty five percent (25%) of Phase 1 costs.

The DPSS Data Warehouse will increase the effectiveness and efficiency of the Department as it complies with reporting requests from the State of California, DPSS executive management and DPSS program managers. The estimated cost reductions are illustrated below:

- The current cost for producing a simple report is $4,000. The Data Warehouse has the potential to reduce this cost to $780.
- The current cost for producing a standard report is $15,600. The Data Warehouse has the potential to reduce this cost to $1,326.
- The current cost for producing a simple report is $23,400. The Data Warehouse has the potential to reduce this cost to $1,950.

CIO Concerns:

None.

CIO Recommendations:

The Department's Data Warehouse Project for its DPSSTATS process is aligned with the County's Strategic Plan and I/T Strategic Directions. Data Warehouse initiatives such as this add value to the County as a whole and improve the organization's ability to share data across departments. My office supports this action and recommends approval by the Board.

CIO APPROVAL

Date Received:	July 10, 2006
Prepared by:	James Hall
Date:	July 31, 2006
Approved:	Chris Melody
Date:	July 31, 2006