

Oakland County Department of Information Technology Project Scope and Approach

Project Name: Community Corrections DW

Project ID: DJ8174DW

Leadership Group: Courts			
Department: Public Services		Division: Community Corrections	
Project Sponsor: Barb Hankey	Date Requested: 03/18/2008	PM Customer No. 174	
Request Type:	<i><u>New Development</u></i>	<i>Enhancement</i>	<i>Customer Support</i>
	<i>Planned System Maintenance or Upgrade</i>		
IT Team Name: eGov Application Services		IT Team No: J	
Project Manager/Leader: Pat Hannum			
Account Number: TBD	Account Description: TBD	Customer Name:	TBD
Grant Funded? Yes <u>No</u>	Mandate? Yes <u>No</u>	Mandate Source:	

Project Goal

To make a functional data warehouse using the C*Star data so that authorized Community Corrections line staff will be able to develop their own reports.

To use C*Star data to develop a sanction and services matrix for judges and other program referral sources to promote the use of available community programs when appropriate.

Business Objective

- To reduce the amount of time that Community Corrections' line staff spends creating reports.
- To integrate the CStar data into the existing Criminal Justice Data Warehouse (CJDW).
- To position this data so that a future project to bring in COMPAS data can happen.
- To investigate the feasibility of purchasing a dashboarding tool.

Major Deliverables

- Discovery Document
- Data warehouse data model
- Data source documentation
- Data movement process documentation (source-to-target mappings, special processing, change data capture, refresh strategy, etc.)
- Database Design Review documentation
- Data movement code
- Data movement test plans and results
- Operational scheduling and control processing
- Security Strategy

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Report(s) specification documentation (4 - 6)
Semantic layers
Operational Support Documentation
Reports (4 - 6)
Dashboarding tool recommendation document

Approach

- Interview users to determine reporting and data analysis requirements.
- Document and prioritize requirements
- Analyze source system data via Data Profiling techniques and tools
- Develop ETL strategy
- Develop a logical data model
- Design the data warehouse data structures per user reporting requirements.
- Design programs to move data to the reporting database
- Design semantic layer per user requirements
- Modify batch scheduling and audit/control processing specifications
- Create the physical data warehouse data structures
- Construct and test data movement programs
- Construct and verify semantic layer
- Construct and test reports
- Construct and test batch schedules and audit/control programs
- Construct and test security architecture components
- Implement all software components in a production environment
- Provide training to users

Benefits

Intangible

- Improved time management for Community Corrections line staff through the use of key information.
- Addition of this data to the data warehouse has the potential for many future reporting benefits, including determination of peak offender reporting times to help

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with staff scheduling.

- Improved decision making
- Improved reporting/ fewer reports needed from IT
- Potential future Performance Management/ dashboards for Judges or Court Admins

In April 2005 a report was completed by National Institute of Corrections (NIC) consultants Robert Cushman and Mark Cuniff. In the report several recommendations were made. The first was to establish a Criminal Justice Coordinating Committee (CJCC), which the County has done. The second was to "Provide the CJCC with substantial analytical staff support", so that data can "...be converted into useful information. Information should be used to guide policy development, improve decision making, conduct evaluations and feedback that information to program operators and justice system leadership." As it stands now it the data Community Corrections has on offenders / defendants is independent of the data that the jail MIS collects. "Dumping" the C*Star data into the existing criminal justice warehouse would increase our ability to analyze trends such as recidivism. In addition, having this data in the warehouse would assist us in meeting another of the recommendations; "Prepare a sanctions and services matrix". The idea behind creating this type of matrix is so that judges could easily see all programming options, which ones have current availability, and which one(s) best serve the needs of the offender. The matrix could be displayed in a dashboard fashion using the available data from each of the programs. This information could be shown in contrast to the current jail population. If judges knew there were immediate opening in programs, and that the jail was either reaching or in a crowding situation, they might be apt to use an alternative program. If just one offender was placed into a program because of this matrix the savings would be great.

Impact

Number of Users 40-45

Divisions

Community Corrections initially, with the possibility of the Sheriff's Department and Judges in the future.

Leadership Groups

Courts

Risk

Business Environment

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Low – Little or no impact to existing business processes.

Technical Environment

Low – Little or no impact to existing business processes.

Assumptions

Staffing IT Staffing: resources will be available for the hours indicated per the attached project plan.

Other Staffing: additional staffing will be available as follows:

<u>Role:</u>	<u>Name</u>	<u>Hours per Day</u>
Project Sponsor:	Barb Hankey	As needed

Facilities

- Work stations are provided to all the project team members.
- Information Technology Meeting Rooms will be available as needed.

Technical

- Necessary tools and software will be installed on the team member's workstations.
- Project team will be given permission to work/access required data areas and software tools.
- The technical project team will consist of programmers/analysts experienced in data warehouse project(s).

Funding

-

Other

- Decision support software will be determined

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- ETL software will be determined

Priority

Constraints

- Data Warehouse team needs access to all necessary documentation
-

Exclusions

- Any data not currently contained within the C*Star database will be excluded from this project.

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PROJECT PHASE AUTHORIZATION

Phase(s): All	
Total Estimated Application Services	Hours: Cost:
Total Estimated Technical Systems	Hours: 6 Cost: \$ 732.00
Total Estimated eGovernment Services	Hours: 1293 Cost: \$157,746.00
Total Estimated CLEMIS	Hours: Cost:
Total Estimated Internal Services	Hours: Cost:
IT Application Services Division Manager Approval:	Date:
IT Technical Systems Division Manager Approval:	Date:
IT eGovernment Services Division Manager Approval:	Date:
IT CLEMIS Division Manager Approval:	Date:
IT Internal Services Division Manager Approval:	Date:
IT Management Approval:	
Approved: Yes No	Date:
Reason:	
Project Sponsor Approval:	
Title:	Date:

PROJECT SUMMARY

Authorized Development (see above)	Hours: 1,299	Cost: \$158,478
Preliminary Estimated Development for Future Phases	Hours:	Cost:
Grand Total Estimated Development	Hours: 1,299	Cost: \$158,478

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PROJECT COMPLETION AUTHORIZATION

Customer Acceptance of Product:	
Title:	Date:
Project Office Review:	Date:

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Type	ID	Task Name	Estimated Hours	Estimated Cost	Estimate Notes
Phase	000000	PROJECT MANAGEMENT PRELIMINARY ESTIMA	282	\$34,404.00	
Phase	030000	BUSINESS AREA REQUIREMENTS PRELIMINARY	175	\$21,350.00	
Phase	050000	TECHNICAL DESIGN PRELIMINARY ESTIMATE	235	\$28,670.00	Assumption made that all tables from source system will be added to DW but will be redesigned int
Phase	060000	PROGRAMMING PRELIMINARY ESTIMATE	528	\$64,416.00	Programming estimates include 25 hours for modifications to source system to allow for better mat
Phase	070000	IMPLEMENTATION PRELIMINARY ESTIMATE	55	\$6,710.00	
Phase	080000	POST IMPLEMENTATION SUPPORT PRELIMINAR	24	\$2,928.00	
			1,299	\$158,478.00	

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3.1 - Provide an Enhanced Application Service Offering

- 3.1.1 - Increase application integration through web services
- 3.1.2 - Research and develop a Constituent Relationship Management (CRM) strategy
- 3.1.3 - Promote mobility and location integration in business applications
- 3.1.4 - Utilize ecommerce platform to offset costs and expand product offerings to customers
- 3.1.5 - Improve the quality, reliability and availability of all applications
- 3.1.6 - Increase the agility and responsiveness of business units by expanding customer analytics
- 3.1.7 - Leverage the County's Internet presence and portal as a branded consolidated point of access to all County information and services through a web browser
- 3.1.8 - Centralize identity and access management for all applications and content

3.2 - Enhance ability to provide effective and timely customer (County departments and CVTs) service

- 3.2.1 - Implement a centralized service center strategy to provide a single point of contact
- 3.2.2 - Implement the IT Infrastructure Library (ITIL) best practice framework for IT Service Management
- 3.2.3 - Define a service and support strategy that clearly identifies the IT service provided
- 3.2.4 - Provide a high-quality training program to empower employees through technology
- 3.2.5 - Develop a formalized customer communication plan
- 3.2.6 - Build IT Staff expertise through professional development
- 3.2.7 - Expand capacity through ongoing organizational review and selective outsourcing

3.3 - Implement a Standardized Infrastructure Strategy

- 3.3.1 - Deliver services using a shared technology infrastructure wherever possible
- 3.3.2 - Implement a Microsoft infrastructure strategy
- 3.3.3 - Implement a consolidated security strategy
- 3.3.4 - Establish a standard personal computing hardware and software product suite, SLA, and replacement schedule for all County personal computers
- 3.3.5 - Establish support cost model and SLA for all offerings outside 3.3.4
- 3.3.6 - Improve service availability through network design and management strategies
- 3.3.7 - Establish enhanced capacity planning and recovery management strategies

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Return on Investment Analysis

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Benefits/Savings:							
Tangible Benefits Subtotal:	0	0	0	0	0	0	0
Cost Avoidance Subtotal:	725,400	725,400	725,400	725,400	725,400	725,400	4,352,400
Costs:							
Development Services Subtotal:	174,094	10,736	8,296	7,076	6,466	6,161	212,829
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal:	0	0	0	0	0	0	0
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	725,400	725,400	725,400	725,400	725,400	725,400	4,352,400
Annual Total Costs	174,094	10,736	8,296	7,076	6,466	6,161	212,829
Annual Return on Investment	551,306	714,664	717,104	718,324	718,934	719,239	4,139,571
Annual Costs/Savings Ratio	24.00%	1.48%	1.14%	0.98%	0.89%	0.85%	
Project Cumulative Statistics:							
Cumulative Total Savings	725,400	1,450,800	2,176,200	2,901,600	3,627,000	4,352,400	4,352,400
Cumulative Total Costs	174,094	184,830	193,126	200,202	206,668	212,829	212,829
Cumulative Return on Investment	551,306	1,265,970	1,983,074	2,701,398	3,420,332	4,139,571	4,139,571
Cumulative Cost/Savings Ratio	24.00%	12.74%	8.87%	6.90%	5.70%	4.89%	4.89%
Year Positive Payback Achieved	Year 1						Year 1
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor	Date: _____						
Costs (including IT Resources) Reviewed By Information Technology Project Manager	Date: _____						
Costs (including IT Resources) Reviewed By Technical Services Manager	Date: _____						

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project			
								Y1	Y2	Y3	Y4
IT Hours - New Development	Development Svcs		HR	1,299	122	158,478		x			
IT Hours - System Maintenance	Development Svcs		HR	80	122	9,760	0.500	x	x	x	x
IT Hours - Customer Support	Development Svcs		HR	48	122	5,856		x	x	x	x
IT Hours - Planned Maintenance	Development Svcs		HR		122	0					
User Hours - New Development	Development Svcs					0					
User Hours - PTNE/OT	Development Svcs					0					
Contractor Professional Services	Development Svcs					0					
PC System - Acquisition	Hardware				814	0					
PC System - Maintenance	Hardware				2,304	0					
Notebook - Acquisition	Hardware				1,223	0					
Notebook - Maintenance	Hardware				2,372	0					
Tablet Notebook - Acquisition	Hardware				2,012	0					
Tablet Notebook - Maintenance	Hardware					0					
Laserprinter - Acquisition	Hardware				1,432	0					
Laserprinter - Maintenance	Hardware				1,104	0					
Image Workstations - Acquisition	Hardware					0					
Image Workstations - Maintenance	Hardware				3,496	0					
PC Maintenance User Owned	Hardware				2,304	0					
Printer Maintenance User Owned	Hardware				1,072	0					
Package Software - Acquisition	Software					0					
Package Software - Maintenance	Software					0					
Business Objects Access	Software					0					
Term Emulation SFTW-Acquisition	Software					0					
Term Emulation SFTW-Maintenance	Software					0					
Server - Acquisition/Upgrade	Infrastructure				8,000	0					
Server - Maintenance	Infrastructure				360	0					
Server Sftwre - Acquisition/Upgrade	Infrastructure				335	0					
Server Sftwre - Maintenance	Infrastructure					0					
Server Rack Mount	Infrastructure				400	0					
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure				21,372	0					
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure				3,432	0					

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Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project			
								Y1	Y2	Y3	Y4
MS SQL Server Standard Per Processor - Includes Year 1 Maintenance	Infrastructure				4,725	0					
MS SQL Server Standard Per Processor - Year 2 and Beyond	Infrastructure				946	0					
MS SQL Server Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure				19,693	0					
MS SQL Server Enterprise Per Processor - Year 2 and Beyond	Infrastructure				3,939	0					
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				3,506	0					
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				701	0					
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				13,180	0					
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				2,635	0					
SSL Certificate	Infrastructure				845	0					
TBD	Infrastructure					0					
TBD	Infrastructure					0					
TBD	Infrastructure					0					

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	t ROI?		Potential Cost Extensions					
		Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs			158,478.00					
IT Hours - System Maintenance	Development Svcs	x	x	9,760.00	4,880.00	2,440.00	1,220.00	610.00	305.00
IT Hours - Customer Support	Development Svcs	x	x	5,856.00	5,856.00	5,856.00	5,856.00	5,856.00	5,856.00
IT Hours - Planned Maintenance	Development Svcs								
User Hours - New Development	Development Svcs								
User Hours - PTNE/OT	Development Svcs								
Contractor Professional Services	Development Svcs								
PC System - Acquisition	Hardware								
PC System - Maintenance	Hardware								
Notebook - Acquisition	Hardware								
Notebook - Maintenance	Hardware								
Tablet Notebook - Acquisition	Hardware								
Tablet Notebook - Maintenance	Hardware								
Laserprinter - Acquisition	Hardware								
Laserprinter - Maintenance	Hardware								
Image Workstations - Acquisition	Hardware								
Image Workstations - Maintenance	Hardware								
PC Maintenance User Owned	Hardware								
Printer Maintenance User Owned	Hardware								
Package Software - Acquisition	Software								
Package Software - Maintenance	Software								
Business Objects Access	Software								
Term Emulation SFTW-Acquisition	Software								
Term Emulation SFTW-Maintenance	Software								
Server - Acquisition/Upgrade	Infrastructure								
Server - Maintenance	Infrastructure								
Server Sftwre - Acquisition/Upgrade	Infrastructure								
Server Sftwre - Maintenance	Infrastructure								
Server Rack Mount	Infrastructure								
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure								
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure								

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Cost Detail

Cost Description	Project Cost Category	t ROI?		Potential Cost Extensions					
		Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6
MS SQL Server Standard Per Processor - Includes Year 1 Maintenance	Infrastructure								
MS SQL Server Standard Per Processor - Year 2 and Beyond	Infrastructure								
MS SQL Server Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure								
MS SQL Server Enterprise Per Processor - Year 2 and Beyond	Infrastructure								
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure								
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure								
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure								
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure								
SSL Certificate	Infrastructure								
TBD	Infrastructure								
TBD	Infrastructure								
TBD	Infrastructure								

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Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Development Services:							
IT Hours - New Development	158,478						158,478
IT Hours - System Maintenance	9,760	4,880	2,440	1,220	610	305	19,215
IT Hours - Customer Support	5,856	5,856	5,856	5,856	5,856	5,856	35,136
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
<i>Development Services Subtotal:</i>	174,094	10,736	8,296	7,076	6,466	6,161	212,829
Hardware:							
<i>Hardware Subtotal:</i>							
Software:							
<i>Software Subtotal:</i>							
Infrastructure:							
<i>Infrastructure Subtotal</i>							
Training:							
<i>Training Subtotal:</i>							
Other:							

