

# Oakland County Department of Information Technology Project Scope and Approach

**Project Name: Community Corrections COMPAS DW integration    Project ID: DJ8174CO**

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

## **Project Goal**

To integrate the COMPAS data into the Criminal Justice Data Warehouse (CJDW) so that authorized personnel will be able to develop their own reports using this data.

To make COMPAS data available to individuals responsible for jail release decisions so that this scientific and predictive data can be used to determine which offenders present the lowest risk to public safety.

## **Business Objective**

To position this data so that the information can be used for reporting purposes when a statutory release at the jail is needed. This system measures such things as risk of recidivism and having this data integrated into the CJDW would eliminate the need for manual lookups in a different system.

### **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.)
- Technical Review documentation
- Data movement code
- Data movement test plans and results
- Operational scheduling and control processing

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Security Strategy  
Report(s) specification documentation (4 - 6)  
Semantic layers  
Operational Support Documentation  
Reports (4 - 6)

## **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**

- Addition of this data to the data warehouse has the potential for many future reporting benefits.
- Eliminate the need for manually looking this information up during a statutory release at the jail.

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- To be used to develop the Sanctions and Services matrix as recommended during the NIC study conducted in 2005.
- Injecting evidence based practice into the emergency release decision
- To build analytics regarding Community Corrections programs using inmate profiles that will allow us to determine program success and recidivism rates based on inmate demographics and criminal profiles in the future.
- The COMPAS is a risk / needs assessment tool which scores an offender in four main risk categories: Risk of Recidivism, Risk of Violence, Risk of Non-Compliance and Risk of Fail to appear. It also scores the offender on a number of needs which are commonly referred to as criminogenic needs. Research has shown that when these needs are targeted through programming a reduction in recidivism will be achieved. The risk scores (if in the warehouse) could be merged into an existing report that generates names of offenders who are eligible to be released should an emergency release become necessary. Being able to selectively release only those offenders who pose the least amount of risk to the public is immeasurable. It is almost impossible to determine how many crimes or new victims would be prevented with this type of additional scientifically based data.

## **Impact**

**Number of Users**    40-45

## **Divisions**

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

## **Leadership Groups**

Courts

## **Risk**

### **Business Environment**

Low – Little or no impact to existing business processes.

### **Technical Environment**

Low – Little or no impact to existing business processes.

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**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:

<b><u>Role:</u></b>	<b><u>Name</u></b>	<b><u>Hours per Day</u></b>
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).
- Decision support software to be determined
- ETL software to be determined

**Funding**

- 

**Other**

- 

**Priority**

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**Constraints**

- Data Warehouse team needs access to all necessary documentation

**Exclusions**

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

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**PROJECT PHASE AUTHORIZATION**

<b>Phase(s):</b>		
<b>Total Estimated Application Services</b>	<b>Hours:</b>	<b>Cost:</b>
<b>Total Estimated Technical Systems</b>	<b>Hours: 6</b>	<b>Cost: \$ 732.00</b>
<b>Total Estimated eGovernment Services</b>	<b>Hours: 643</b>	<b>Cost: \$78,446.00</b>
<b>Total Estimated CLEMIS</b>	<b>Hours:</b>	<b>Cost:</b>
<b>Total Estimated Internal Services</b>	<b>Hours:</b>	<b>Cost:</b>
<b>IT Application Services Division Manager Approval:</b>		<b>Date:</b>
<b>IT Technical Systems Division Manager Approval:</b>		<b>Date:</b>
<b>IT eGovernment Services Division Manager Approval:</b>		<b>Date:</b>
<b>IT CLEMIS Division Manager Approval:</b>		<b>Date:</b>
<b>IT Internal Services Division Manager Approval:</b>		<b>Date:</b>
<b>IT Management Approval:</b>		
Approved:            Yes            No		<b>Date:</b>
Reason:		
<b>Project Sponsor Approval:</b>		
Title:		<b>Date:</b>

**PROJECT SUMMARY**

<b>Authorized Development (see above)</b>	<b>Hours: 649</b>	<b>Cost: \$79,178.00</b>
<b>Preliminary Estimated Development for Future Phases</b>	<b>Hours:</b>	<b>Cost:</b>
<b>Grand Total Estimated Development</b>	<b>Hours: 649</b>	<b>Cost: \$79,178.00</b>

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**PROJECT COMPLETION AUTHORIZATION**

<b>Customer Acceptance of Product:</b>	
Title:	Date:
<b>Project Office Review:</b>	Date:

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Open Workbench - [Community Corrections COMPAS DW Integration - Size Estimate (+/- 10% to 50%)]

File Edit View Tools Window Help

[All Resources]

Type	ID	Task Name	Estimated Hours	Estimated Cost	Estimate Notes
Pha	000000	PROJECT MANAGEMENT PRELIMINARY ESTIMA	139	\$16,958.00	
Phase	030000	BUSINESS AREA REQUIREMENTS PRELIMINARY	120	\$14,640.00	
Phase	050000	TECHNICAL DESIGN PRELIMINARY ESTIMATE	165	\$20,130.00	
Phase	060000	PROGRAMMING PRELIMINARY ESTIMATE	185	\$22,570.00	Assuming that approximately 10 new tables will be added to the DW.
Phase	070000	IMPLEMENTATION PRELIMINARY ESTIMATE	31	\$3,782.00	Assumption that training will not be necessary as training will be done with the prior project.
Phase	080000	POST IMPLEMENTATION SUPPORT PRELIMINAR	9	\$1,098.00	
			649	\$79,178.00	

For Help, press F1

Task Type not equal to Milestone

NUM

**DJ8174CO - Community Corrections COMPAS DW Integration**

**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 for
- 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

**Oakland County -- Community Corrections COMPAS DW integration**

Return on Investment Analysis

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
<b>Benefits/Savings:</b>							
Tangible Benefits Subtotal:	0	0	0	0	0	0	0
Cost Avoidance Subtotal:	66,960	66,960	66,960	66,960	66,960	66,960	401,760
<b>Costs:</b>							
Development Services Subtotal:	89,914	8,296	7,076	6,466	6,161	6,009	123,922
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
<b>Annual Statistics:</b>							
Annual Total Savings	66,960	66,960	66,960	66,960	66,960	66,960	401,760
Annual Total Costs	89,914	8,296	7,076	6,466	6,161	6,009	123,922
Annual Return on Investment	(22,954)	58,664	59,884	60,494	60,799	60,952	277,839
Annual Costs/Savings Ratio	134.28%	12.39%	10.57%	9.66%	9.20%	8.97%	
<b>Project Cumulative Statistics:</b>							
Cumulative Total Savings	66,960	133,920	200,880	267,840	334,800	401,760	401,760
Cumulative Total Costs	89,914	98,210	105,286	111,752	117,913	123,922	123,922
Cumulative Return on Investment	(22,954)	35,710	95,594	156,088	216,887	277,839	277,839
Cumulative Cost/Savings Ratio	134.28%	73.33%	52.41%	41.72%	35.22%	30.84%	30.84%
Year Positive Payback Achieved		Year 2					Year 2
State or Federal Mandate?							
<b>Signatures:</b>							
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: _____						







Oakland County -- Community Corrections COMPAS DW integration

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	649	122	79,178		x			
IT Hours - System Maintenance	Development Svcs		HR	40	122	4,880	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					

**Oakland County -- Community Corrections COMPAS DW integration**

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			79,178.00						
IT Hours - System Maintenance	Development Svcs	x	x	4,880.00	2,440.00	1,220.00	610.00	305.00	152.50	
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	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
<b>Development Services:</b>							
IT Hours - New Development	79,178						79,178
IT Hours - System Maintenance	4,880	2,440	1,220	610	305	153	9,608
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>	<b>89,914</b>	<b>8,296</b>	<b>7,076</b>	<b>6,466</b>	<b>6,161</b>	<b>6,009</b>	<b>123,922</b>
<b>Hardware:</b>							
<i>Hardware Subtotal:</i>							
<b>Software:</b>							
<i>Software Subtotal:</i>							
<b>Infrastructure:</b>							
<i>Infrastructure Subtotal</i>							
<b>Training:</b>							
<i>Training Subtotal:</i>							
<b>Other:</b>							

