

**Oakland County  
Department of Information Technology  
Project Scope and Approach**

**Project Name: Medical Examiner CME Thin-Client**

**Project ID: DD4176CM**

<b>Leadership Group: Governmental Services</b>			
<b>Department: Public Services</b>		<b>Division: Medical Examiner</b>	
<b>Project Sponsor: Robert Gerds</b>	<b>Date Requested: 3/30/04</b>	<b>PM Customer No. 179</b>	
<b>Request Type:</b>	<input checked="" type="checkbox"/> <i>New Development</i>	<i>Enhancement</i>	
	<i>Maintenance</i>	<i>Customer Support</i>	
<b>IT Team Name: Governmental Services</b>		<b>IT Team No: D</b>	
<b>Project Manager/Leader: Carole Y. Johnson</b>			
<b>Account Number:</b>	<b>Account Description:</b>	<b>Customer Name:</b>	Public Services/ Medical Examiner
<b>Grant Funded? Yes</b>	<input checked="" type="checkbox"/> <b>No</b>	<b>Mandate? <input checked="" type="checkbox"/> Yes</b>	<b>No</b>
		<b>Mandate Source: Public Act 92</b>	

**Project Goal**

To develop a thin-client Medical Examiners application with the same functionality as the current CME application, by December 2005.

**Business Objective**

To identify the business process and system requirements to develop a thin-client application.

**Major Deliverables**

- Requirements and Use Case Document

**Approach**

- Document the current business rules and process to be included in the Thin-client solution
- Determine additional requirements for the new system.
- Create a project plan

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**Business Objective**

To develop a thin-client system to replace the current CME system.

**Major Deliverables**

- A Web based application

**Approach**

- Develop and release module by module
- Customer test and verify
- Release final product to test
- Process in parallel
- Acceptance test

**Benefits**

***See Return on Investment (ROI) Analysis Document***

The current application is unsupported. A new system will support the Thin-Client initiative and will be a proactive move to adequately supporting the business functions of the Medical Examiners Office.

**Impact**

**Number of Users**                      Medical Examiners office - 27 full time employees.

**Divisions**                                Public Services

**Leadership Groups**                    Governmental Services

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**Risk**

**Business Environment**      Medium - Project requires some changes to existing Business High-.without this project will not be able to continue to provide a high level of service.

**Technical Environment**      Medium - Previously implemented technologies, new requirements,

**Assumptions**

**Staffing**      Resources will be available for the hours indicated per the attached project plan.  
The following roles and resources' availability will be as follows:

<b><u>Role:</u></b>	<b><u>Name</u></b>	<b><u>Hours per Day</u></b>
Project Sponsor:	Robert Gerds	As needed
Project Manager:	Carole Y. Johnson	4
Data Base Administrator:	TBD	
Source System Expert:		
Business Analyst:	TBD	
Programmer/Analyst:	TBD	

**Facilities**

- Medical Examiners Office
- Information Technology

**Technical**

- The CME system will be used as the basis for gathering requirements. The new system must be able to accept the same input and generate the same output as the system currently in production.
- The thin -client solution will require the current PCs to be replaced with the thin-client PC.

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- Convert existing data to be accessible by new system.

**Funding**

- General Fund

- 

**Other**

- The vendor no longer supports the current CME application. The system's hardware and operating system is no longer supported. The space allocation for the images is inefficient due to the hardware constraints and therefore cannot be increased to support the anticipated caseload.
- See Addendum

**Priority**

**Constraints**

- Money and Resources. The necessary resource will be available to
- 

**Exclusions**

- 

-

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## PROJECT PHASE AUTHORIZATION

<b>Phase(s):</b>		
<b>Total Estimated Systems Development</b>	<b>Hours:</b>	<b>3,420 Cost: \$417,240</b>
<b>Total Estimated Technical Systems</b>	<b>Hours:</b>	<b>300 Cost: \$24,400</b>
<b>Total Estimated DISC</b>	<b>Hours:</b>	<b>Cost:</b>
<b>Total Estimated CLEMIS</b>	<b>Hours:</b>	<b>Cost:</b>
<b>IT Systems Development Division Manager Approval:</b>	<b>Date:</b>	
<b>IT Technical Systems Division Manager Approval:</b>	<b>Date:</b>	
<b>IT DISC Division Manager Approval:</b>	<b>Date:</b>	
<b>IT CLEMIS Division Manager Approval:</b>	<b>Date:</b>	
<b>IT Resource Manager Approval:</b>	<b>Date:</b>	
<b>IT Resource Manager Approval:</b>	<b>Date:</b>	
<b>IT Resource Manager Approval:</b>	<b>Date:</b>	
<b>IT Resource Manager Approval:</b>	<b>Date:</b>	
<b>IT Resource 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: 3,720</b>	<b>Cost: \$441,640</b>
<b>Preliminary Estimated Development for Future Phases</b>	<b>Hours:</b>	<b>Cost:</b>
<b>Grand Total Estimated Development</b>	<b>Hours: 3,720</b>	<b>Cost: \$441,640</b>

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## PROJECT COMPLETION AUTHORIZATION

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

**Niku Workbench - [CME Thin-Client - Size Estimate (-10% to +50%) (Read-Only)]**

Type	ID	Task Name	Guideline %	Estimated Hours	Estimate Notes
Phase	000000	PROJECT MANAGEMENT		819	
Phase	010000	INITIAL SURVEY		110	
Phase	030000	BUSINESS AREA REQUIREMENTS		110	
Phase	040000	BUSINESS SYSTEM DESIGN		47	
Phase	050000	TECHNICAL DESIGN		410	
Phase	060000-0	PROGRAMMING		2,070	
Phase	070000	IMPLEMENTATION		107	
Phase	080000	POST IMPLEMENTATION SUPPORT		47	
				3,720	

For Help, press F1 | Task Type not equal to Milestone | NUM

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**ADDENDUM - Need Assessment**

The current CME (Coroner Medical Examiner) system in place at the MEO (Medical Examiner's Office) has affected overall efficiency, public service, clerical turn around time and investigation. The foundation in place allows case intake, investigation, uploading of scene/autopsy photos, body storage and report generation. Inquires whether public, private or internal can be referenced electronically without having to locate the actual case file. This eliminated the time consuming index card preparation for each case. Index cards were necessary to locate alphabetically cases by name. It was also necessary to update the cards as needed.

Autopsy reports are generated from a template driven from data entered into CME. It has eliminated approximately 50% of the clerical time needed to generate autopsy reports. The automated template allows the doctors to be able to comment on remarkable area/findings thus reducing the doctor's dictation time. The autopsy reports are saved electronically in multiple places for record retention and retrieval.

There are a lot of public and business telephone inquires fielded by both clerical and investigation staff. CME allows for file information as a desktop search rather than physically searching for case files/status. Both scene and autopsy photographs are digitally taken. This has eliminated the need for Polaroid photographs. Polaroid photographs are of less photographic quality than the current 4.1 mega-pixel cameras in use. The superior image quality of the digital images cannot be compared to Polaroid photographs. Photographs taken in extreme cold have developing problems and do not turn out. No temperature problems have been experienced with the digital cameras. The images are used to furnish the doctors' accurate death scene images immediately. Polaroid photographs cost over \$1 each and our budget has been reduced by at least \$3,000/year by using the digital cameras. The digital cameras were a one time cost and have already amortized themselves in the cost of Polaroid film. Without a CME system this office would have to revert back to Polaroid photographs since there would be no place to upload or store the digital images or other data. This would be a major step backward.

If the current CME system is not supported by IT or another system not developed to replace it, then this office would have to revert back to the hard copy system in use before CME. This is another step backwards. It is not a question of how much time would be spent developing a similar type CME system and the cost effectiveness of such system but rather how much more time, effort and money would be needed to support/revert back to the hard copy system. It is the standard in which it is judged. If you are examining and comparing changes using the current CME system I would look for a continuation of the status quo. A similarly developed system that would deliver the current levels of service and is supported by IT. It would maintain current service levels. If you are comparing it to the prior hard copy system then the same figures, percentages and arguments that were made in support of the CME system hold true for

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the development of continuation of support for CME. The investment in the current CME has shown improvements in clerical time by reducing time preparing autopsy reports, record access/storage, image retrieval, improved response time for fielding public or business inquiries and generating reports on CME. Without IT support for either the current CME system or the development of a system that can be supported there will be a decrease in services at the MEO. I would need to request at least one full time position for additional clerical personnel to handle the extra clerical workload. An Office Assistant 2 position is a salary grade 5. The doctors would have to work with inferior Polaroid pictures from death scene investigations. Hard copy card file inquires would take at least twice the time that is now needed to research and obtain information. Hard copy files would be needed to find copy record information that is currently accessible to any authorized CME user via a computer station. Record storage is always a challenge. Without support of a CME type system this would create a higher amount of hard copy data to be stored and microfilmed.

The county through CME has given the MEO the technology to improve the way this office functions. The investment in training, technology and improved service is now the expected norm. Either to not continue support of CME or not insure a comparable replacement system would be synonymous to telling someone that has successfully used a computer for word processing that they now have to revert back to a stick and rope work environment.

**Oakland County -- CME Thin-Client**  
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:	123,390	126,932	130,578	134,333	138,198	142,177	795,608
Cost Avoidance Subtotal:	49,587	51,075	52,607	54,185	55,811	57,485	320,749
<b>Costs:</b>							
Development Services Subtotal:	441,640	36,600	36,600	36,600	36,600	36,600	624,640
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	172,977	178,007	183,185	188,518	194,008	199,662	1,116,358
Annual Total Costs	441,640	36,600	36,600	36,600	36,600	36,600	624,640
Annual Return on Investment	(268,663)	141,407	146,585	151,918	157,408	163,062	491,718
Annual Costs/Savings Ratio	255.32%	20.56%	19.98%	19.41%	18.87%	18.33%	
<b>Project Cumulative Statistics:</b>							
Cumulative Total Savings	172,977	350,984	534,170	722,687	916,696	1,116,358	1,116,358
Cumulative Total Costs	441,640	478,240	514,840	551,440	588,040	624,640	624,640
Cumulative Return on Investment	(268,663)	(127,256)	19,330	171,247	328,656	491,718	491,718
Cumulative Cost/Savings Ratio	255.32%	136.26%	96.38%	76.30%	64.15%	55.95%	55.95%
Year Positive Payback Achieved			Year 3				Year 3
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 -- CME Thin-Client**  
Return on Investment Analysis

*Savings Detail*

Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
						0	



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Return on Investment Analysis

*Savings Detail*

Benefit/Savings Description	Project Savings Category	Affects Project ROI?						Potential Savings Extensions						
		Y1	Y2	Y3	Y4	Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6	



**Oakland County -- CME Thin-Client**  
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
IT Hours - New Development	Development Svcs		HR	3,620	122	441,640	
IT Hours - System Maintenance	Development Svcs		HR	300	122	36,600	
IT Hours - New Development (NS)	Development Svcs		HR	100	0	0	
User Hours - PTNE/OT	Development Svcs					0	
Contractor Professional Services	Development Svcs					0	
PC System - Acquisition	Hardware					0	
PC System - Maintenance	Hardware				2,304	0	
Notebook - Acquisition	Hardware					0	
Notebook - Maintenance	Hardware				2,372	0	
Mini Notebook - Acquisition	Hardware					0	
Mini Notebook - Maintenance	Hardware				2,196	0	
Laserprinter 1 - Acquisition	Hardware					0	
Laserprinter 1 - Maintenance	Hardware				1,104	0	
Laserprinter 2 - Acquisition	Hardware					0	
Laserprinter 2 - Maintenance	Hardware				1,208	0	
Laserprinter 3 - Acquisition	Hardware					0	
Laserprinter 3 - Maintenance	Hardware				1,860	0	
Image Workstations - Acquisition	Hardware					0	
Image Workstations - Maintenance	Hardware				3,496	0	
Terminals - Acquisition	Hardware					0	
Terminals - Maintenance	Hardware				644	0	
PRTR w/TERM ID - Acquisition	Hardware					0	
PRTR w/TERM ID - Maintenance	Hardware				1,072	0	
PRTR w/o TERM ID - Acquisition	Hardware					0	
PRTR w/o TERM ID - Maintenance	Hardware				1,072	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					0	

**Oakland County -- CME Thin-Client**  
Return on Investment Analysis

*Cost Detail*

<b>Cost Description</b>	<b>Project Cost Category</b>	<b>Budget Category/Funding Source</b>	<b>Unit Desc</b>	<b>Units</b>	<b>Rate per Unit</b>	<b>Total Cost</b>	<b>Annual Multiplier</b>
Server - Maintenance	Infrastructure					0	
Server Sftwre - Acquisition/Upgrade	Infrastructure					0	
Server Sftwre - Maintenance	Infrastructure					0	
TBD	Infrastructure					0	
TBD	Infrastructure					0	
TBD	Infrastructure					0	
TBD	Infrastructure					0	
Internet Access	Infrastructure				180	0	
Project Staff Training	Training					0	
User Training	Training					0	
						0	
						0	
						0	
						0	
						0	

**Oakland County -- CME Thin-Client**  
Return on Investment Analysis

*Cost Detail*

Cost Description	Project Cost Category	Affects Project ROI?						Potential Cost Extensions						
		Y1	Y2	Y3	Y4	Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6	
IT Hours - New Development	Development Svcs	x						441,640						
IT Hours - System Maintenance	Development Svcs		x	x	x	x	x		36,600	36,600	36,600	36,600	36,600	36,600
IT Hours - New Development (NS)	Development Svcs	x						0						
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													
Mini Notebook - Acquisition	Hardware													
Mini Notebook - Maintenance	Hardware													
Laserprinter 1 - Acquisition	Hardware													
Laserprinter 1 - Maintenance	Hardware													
Laserprinter 2 - Acquisition	Hardware													
Laserprinter 2 - Maintenance	Hardware													
Laserprinter 3 - Acquisition	Hardware													
Laserprinter 3 - Maintenance	Hardware													
Image Workstations - Acquisition	Hardware													
Image Workstations - Maintenance	Hardware													
Terminals - Acquisition	Hardware													
Terminals - Maintenance	Hardware													
PRTR w/TERM ID - Acquisition	Hardware													
PRTR w/TERM ID - Maintenance	Hardware													
PRTR w/o TERM ID - Acquisition	Hardware													
PRTR w/o TERM ID - 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													

**Oakland County -- CME Thin-Client**  
Return on Investment Analysis

*Cost Detail*

Cost Description	Project Cost Category	Affects Project ROI?						Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6
Server - Maintenance	Infrastructure												
Server Sftwre - Acquisition/Upgrade	Infrastructure												
Server Sftwre - Maintenance	Infrastructure												
TBD	Infrastructure												
TBD	Infrastructure												
TBD	Infrastructure												
TBD	Infrastructure												
Internet Access	Infrastructure												
Project Staff Training	Training												
User Training	Training												

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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	441,640						441,640
IT Hours - System Maintenance		36,600	36,600	36,600	36,600	36,600	183,000
IT Hours - New Development (NS)	0						
User Hours - PTNE/OT							
Contractor Professional Services							
<i>Development Services Subtotal:</i>	<b>441,640</b>	<b>36,600</b>	<b>36,600</b>	<b>36,600</b>	<b>36,600</b>	<b>36,600</b>	<b>624,640</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>							
<i>Other Subtotal:</i>							
<b>Costs Total:</b>	<b>441,640</b>	<b>36,600</b>	<b>36,600</b>	<b>36,600</b>	<b>36,600</b>	<b>36,600</b>	<b>624,640</b>

