MEMORANDUM

April 27, 2011

TO: Government Operations and Fiscal Policy Committee

FROM: Dr. Costis Toregas, Council IT Adviser

SUBJECT: **FY12 CIP Amendments**: HHS Technology Modernization

The following are expected to attend:
Uma Ahluwalia, Director, HHS
Mike Ferrara, TechMod Executive Manager
E. Steven Emanuel, Chief Information Officer, DTS

The relevant pages from the proposed FY12 CIP Amendments of the County Executive for the Technology Modernization project are attached on © 1 and 2. A presentation from the Executive Branch, with details on the effort, is on ©3-23.

Summary of Staff Recommendation
Agree with the Executive's recommended funding level of $300,000 for the HHS Technology Modernization effort and recommend it to the full Council in its original form for approval.

Overview

The Technology Modernization (TechMod) project is where long term resources are organized in order to prepare, develop and deploy complex projects that improve the productivity of the County operations through the wise use of technology. The project is an element of the Capital Improvements Program, emphasizing and supporting the long-range nature of projects and providing them the funding stability they require for successful completion. Project inclusion within the TechMod framework also brings with it a governance structure that has unwavering leadership from the CAO's Office (rather than alternative models, where either the user department or DTS, given the technical nature of the project, would take the lead role), thus guaranteeing good resolution of resource or priority issue disagreements.

To date, three major projects have been launched within the TechMod framework:

1. MCTime, the automated timesheet effort for all County departments;
2. MC311, the centralized call center; and
3. Enterprise Resource Planning (ERP) for Finance, HR, and Procurement integrated system.

The first two systems are completed and the third is well on its way to completion.

In his 2012 CIP Amendments, the Executive is proposing a $300,000 project that will allow the start of a fourth major modernization effort in the Department of Health and Human Services. It will provide planning funds to establish a Client Services IT project which will take several years to complete. Subsequent TechMod PDFs (Project Description Forms) will give detail and cost estimates for the entire project, using this first phase of planning as a foundation.

Discussion

©3-23 provide details on the anticipated HHS Technology Modernization project, its financing requirements over the long term, and a discussion of possible future partnerships that may reduce the County portion of the cost (estimated to be $15m) and of expected savings through new business processes of at least $3.5m. Of particular interest to the Committee might be the following sections:

> The four client-based scenarios on ©9-12, which show the overwhelming number of programs that must all work together to provide needed services. These scenarios are eloquent testimony to the need for an integrated approach which would permit HHS to be easily accessible and be in a position to provide coordinated solutions to individuals and families. This also puts the County very much in the forefront of citizen-centric service delivery, touted by experts as a practical way to rein in costs and improve service delivery simultaneously.
> The degree of effort already undertaken (shown partially on ©14) to pave the way for this major modernization effort.
> The financial analysis on ©19 that shows that there are two ways in which the project cost can be reduced:
>   o revenues and grants of $4-5m, further detailed in ©21; and
>   o savings conservatively pegged at $3.5m.
> An impressive array of partners on ©23 which would seem to augur well for the chances of success for this complex project.

Staff recommendation

Given the strategy of anchoring the project within the CAO's office as a TechMod project, and the significant promise of process improvements and cost savings potential, staff recommends support for this early planning effort. Once the full project has been scoped and partnerships finalized, the Committee will be in a position to make a final determination for the full implementation requirements that should be provided over the 6-year timeframe of a CIP project template.

Technology Modernization -- MCG -- No. 150701

Category	General Government	Date Last Modified	March 11, 2011
Subcategory	County Offices and Other Improvements	Required Adequate Public Facility	No
Administering Agency	County Executive	Relocation Impact	None.
Planning Area	Countywide	Status	On-going

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY10	Rem. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	80,979	40,887	11,517	28,575	17,095	11,480	0	0	0	0	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	80,979	40,887	11,517	28,575	17,095	11,480	0	0	0	0	0

FUNDING SCHEDULE ($000)

	Total	Thru FY10	Rem. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Current Revenue: General	42,856	25,234	92	17,530	11,462	6,068	0	0	0	0	0
Land Sale	2,634	2,634	0	0	0	0	0	0	0	0	0
Short-Term Financing	35,489	13,019	11,425	11,045	5,633	5,412	0	0	0	0	0
Total	80,979	40,887	11,517	28,575	17,095	11,480	0	0	0	0	0

OPERATING BUDGET IMPACT ($000)

					FY11	FY12	FY13	FY14	FY15	FY16	
Maintenance				37,573	6,036	8,527	11,336	11,674	0	0	
Productivity Improvements				-20,000	0	0	-5,000	-15,000	0	0	
Net Impact				17,573	6,036	8,527	6,336	-3,326	0	0	

DESCRIPTION

This project provides for the replacement, upgrade, and implementation of IT initiatives that will ensure ongoing viability of key processes, replace outdated and vulnerable systems, and produce a high return in terms of customer service and accountability to our residents. Major new IT systems being launched through this project are Enterprise Resource Planning (ERP), 311/Constituent Relationship Management (CRM), related Business Process Review (BPR) and planning activities for a new Department of Health and Human Services IT system to better support client services . ERP will modernize our Core Business Systems to improve the efficiency, effectiveness, and responsiveness of the County Government. The ERP project will provide needed upgrades to the County's financial, procurement, human resource, and budgeting systems and will streamline existing business processes. Business Process Review is occurring as part of ERP requirements analysis and planning. The first phase of this project, MCtime, the implementation of electronic time reporting, is well underway. A new 311/CRM system will combine advanced telephony, internet, and computer technology with constituent-focused business processes. Residents will ultimately be able to call one number to access County government services and built-in tracking and accountability features will assure that every call receives a timely response. Completion of Phase I of the current MC311 (CRM) will include developing an automated service request processing system for the County's Department of Transportation including converting the systems currently used for leaf pick-up, snow removal, tree issues, and street light outages. A competent application support organization will be included as part of MC311 to maintain the mission-critical application without interruption to business users.

COST CHANGE

Increase due to the addition of planning funds for the Department of Health and Human Services Client Services IT project ($300k) and application support organization for MC311 ($470k).

JUSTIFICATION

According to a 2004 ranking of major existing technology systems based on their current health and relative need for upgrade or replacement, the County's current core business systems (ADPICS, FAMIS, BPREP, and HRMS) were ranked as Priority #1, which means "obsolete or vulnerable critical system in immediate risk of failure." These at-risk systems will be replaced with a state of the art ERP system which will provide a common database supporting financials, procurement, budget, and HR/payroll, and will include system-wide features for security, workflow, and reporting, and up-to-date technology architecture. Montgomery County seeks to set a national standard for accountability and responsiveness in governance and the delivery of services to its residents and businesses. A customer-oriented 311/CRM system is needed as a single one-stop-shop phone number and intake system to meet this growing demand. A competent application support organization is required to maintain the mission-critical application; without interruption to business users; to ensure high-availability to customers; to provide assistance to end-users; and to ensure that desired business process changes to the MC311 solution can be reengineered, implemented and deployed. The current cost estimate is based on detailed review of integrator, staffing, hardware, and software costs.

Information Technology Interagency Funding and Budgeting Committee's report of September 30, 2003.
MCG FY06 IT Budget Overview prepared by DTS.

OTHER

The Technology Modernization - MCG project has been intended to serve as an ongoing resource for future IT modernization to the County Government's

APPROPRIATION AND EXPENDITURE DATA

		($000)
Date First Appropriation	FY07	
First Cost Estimate Current Scope	FY12	80,979
Last FY's Cost Estimate		80,209
Appropriation Request	FY12	5,308
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		75,671
Expenditures / Encumbrances		59,092
Unencumbered Balance		16,579
Partial Closeout Thru	FY09	0
New Partial Closeout	FY10	0
Total Partial Closeout		0

COORDINATION

MCG efforts must be coordinated with the recent implementation of a new Financial Management System by MCPS and efforts by other agencies to ensure data transportability and satisfy reporting needs between agencies. Project staff are drawing on the implementation experiences of MCPS, WMATA and governments with functions and components similar to MCG during the project planning, requirements gathering, and requests for proposal (RFP) phases.
Offices of the County Executive
Office of the County Council
Department of Finance
Department of Technology Services
Office of Procurement
Office of Human Resources
Office of Management and Budget
Department of Health and Human Services
All MCG Departments and Offices

MAP
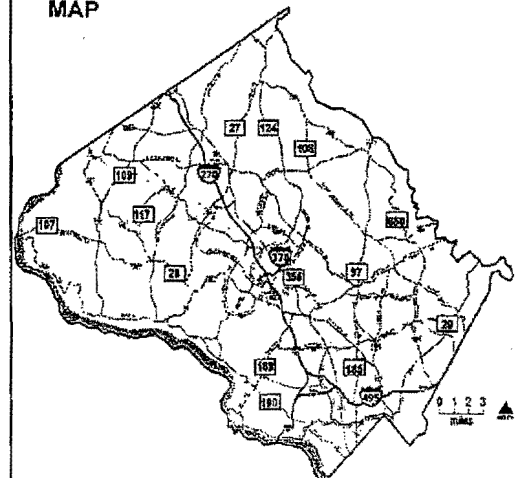
business systems beyond the currently defined project scope. Future projects may include the following:
CRM
Phase II: This initiative will extend the service to municipalities in the County, and other County agencies (e.g. Board of Education, M-NCPPC, Montgomery College). This initiative will proceed based upon interest from these organizations and agreement on funding.

Creation of a Citizen Relationship Management (CRM) program which will develop or convert automated capabilities for all appropriate County services including:
Case Management
Events Management
Field Services
Grants Management
Help Desk Solutions
Point of Sales
Resident Issue Tracking System
Work Order Processing System

ERP
Business Intelligence/Data Warehouse Development
Loan Management
Property Tax Billing and Collection
Public Access to Contractor Payments
Upgrade to Oracle E-Business/Kronos/Siebel
Enhancements to comply with evolving Payment Card Industry (PCI) mandates
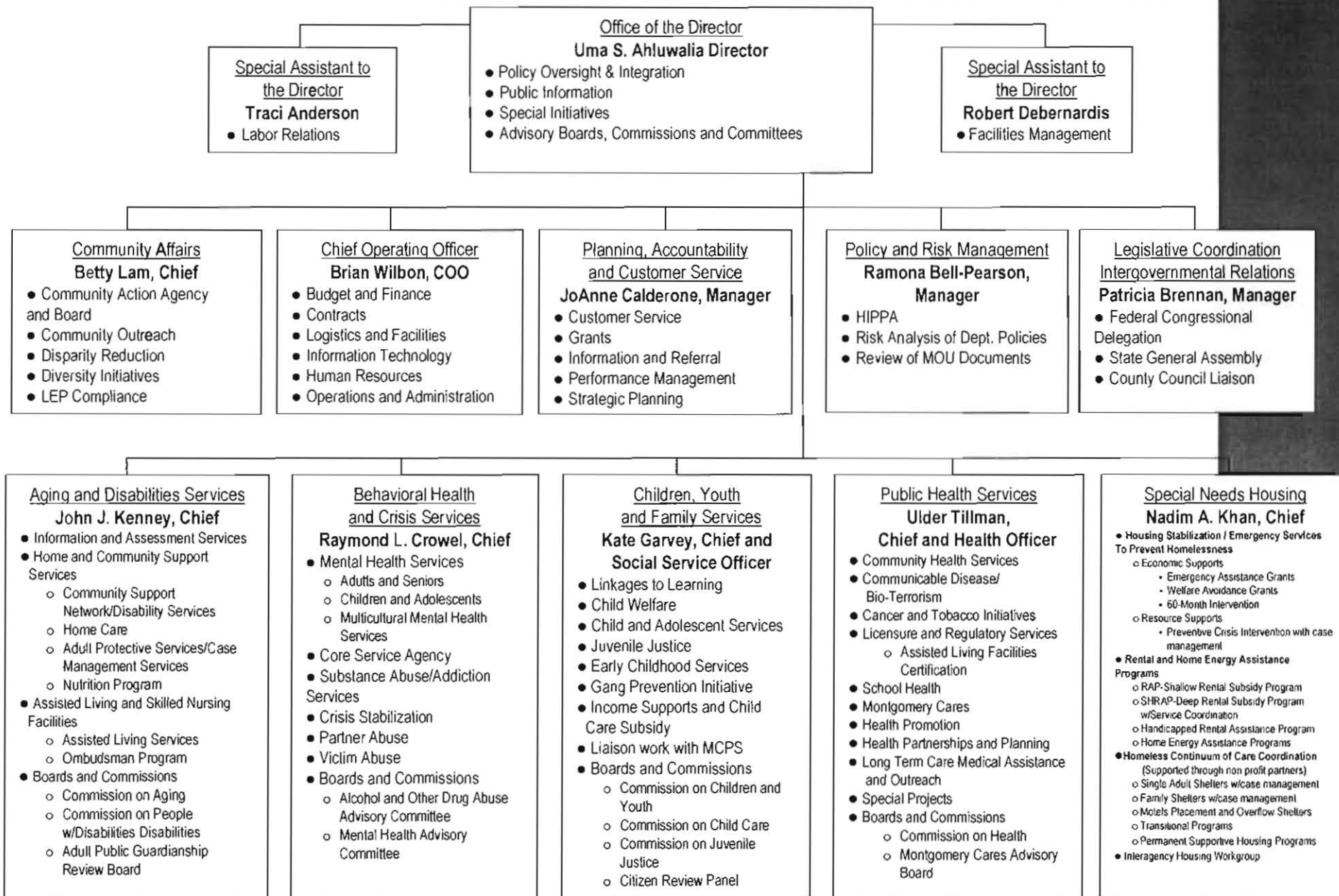**FISCAL NOTE**
Project funding includes short-term financing for integrator services and software costs. Operating Budget Impact revised in FY13 and FY14 to reflect Council productivity targets.

COUNCIL BRIEFING ON HHS
Technology MODERNIZATION

A Presentation by
Department of Health and Human Services
Uma S. Ahluwalia, Director
Friday, April 29, 2011

Office of the Director
Uma S. Ahluwalia Director
- Policy Oversight & Integration
- Public Information
- Special Initiatives
- Advisory Boards, Commissions and Committees

Special Assistant to the Director
Traci Anderson
- Labor Relations

Special Assistant to the Director
Robert Debernardis
- Facilities Management

Community Affairs
Betty Lam, Chief
- Community Action Agency and Board
- Community Outreach
- Disparity Reduction
- Diversity Initiatives
- LEP Compliance

Chief Operating Officer
Brian Wilbon, COO
- Budget and Finance
- Contracts
- Logistics and Facilities
- Information Technology
- Human Resources
- Operations and Administration

Planning, Accountability and Customer Service
JoAnne Calderone, Manager
- Customer Service
- Grants
- Information and Referral
- Performance Management
- Strategic Planning

Policy and Risk Management
Ramona Bell-Pearson, Manager
- HIPPA
- Risk Analysis of Dept. Policies
- Review of MOU Documents

Legislative Coordination Intergovernmental Relations
Patricia Brennan, Manager
- Federal Congressional Delegation
- State General Assembly
- County Council Liaison

Aging and Disabilities Services
John J. Kenney, Chief
- Information and Assessment Services
- Home and Community Support Services
  - Community Support Network/Disability Services
  - Home Care
  - Adult Protective Services/Case Management Services
  - Nutrition Program
- Assisted Living and Skilled Nursing Facilities
  - Assisted Living Services
  - Ombudsman Program
- Boards and Commissions
  - Commission on Aging
  - Commission on People w/Disabilities Disabilities
  - Adult Public Guardianship Review Board

Behavioral Health and Crisis Services
Raymond L. Crowel, Chief
- Mental Health Services
  - Adutls and Seniors
  - Children and Adolescents
  - Multicultural Mental Health Services
- Core Service Agency
- Substance Abuse/Addiction Services
- Crisis Stabilization
- Partner Abuse
- Victim Abuse
- Boards and Commissions
  - Alcohol and Other Drug Abuse Advisory Committee
  - Mental Health Advisory Committee

Children, Youth and Family Services
Kate Garvey, Chief and Social Service Officer
- Linkages to Learning
- Child Welfare
- Child and Adolescent Services
- Juvenile Justice
- Early Childhood Services
- Gang Prevention Initiative
- Income Supports and Child Care Subsidy
- Liaison work with MCPS
- Boards and Commissions
  - Commission on Children and Youth
  - Commission on Child Care
  - Commission on Juvenile Justice
  - Citizen Review Panel

Public Health Services
Ulder Tillman, Chief and Health Officer
- Community Health Services
- Communicable Disease/Bio-Terrorism
- Cancer and Tobacco Initiatives
- Licensure and Regulatory Services
  - Assisted Living Facilities Certification
- School Health
- Montgomery Cares
- Health Promotion
- Health Partnerships and Planning
- Long Term Care Medical Assistance and Outreach
- Special Projects
- Boards and Commissions
  - Commission on Health
  - Montgomery Cares Advisory Board

Special Needs Housing
Nadim A. Khan, Chief
- Housing Stabilization / Emergency Services To Prevent Homelessness
  - Economic Supports
    - Emergency Assistance Grants
    - Welfare Avoidance Grants
    - 60-Month Intervention
  - Resource Supports
    - Preventive Crisis Intervention with case management
- Rental and Home Energy Assistance Programs
  - RAP-Shallow Rental Subsidy Program
  - SHRAP-Deep Rental Subsidy Program w/Service Coordination
  - Handicapped Rental Assistance Program
  - Home Energy Assistance Programs
- Homeless Continuum of Care Coordination (Supported through non profit partners)
  - Single Adult Shelters w/case management
  - Family Shelters w/case management
  - Motels Placement and Overflow Shelters
  - Transitional Programs
  - Permanent Supportive Housing Programs
- Interagency Housing Workgroup

Services and MARYLAND State Department Connections by Service Type

- **Aging and Disability Services**
  DOA, DOD, DHR, DHMH, DVA

- **Behavioral Health and Crisis Services**
  DHMH, GOC, DHR, DPSC

- **Children, Youth and Family Services**
  DHR, GOC, GOCCP, DJS, MSDE, DLLR

- **Public Health Services**
  DHMH, MSDE, DHR

- **Special Needs Housing**
  DHR, DHCD, DHMH

- **Community Outreach | All Departments**

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Federal Agencies Whose Regulations and Funding Strategies Impact County Services

- ACF
- CMS
- SAMHSA
- HRSA
- CDC
- ONCHIT
- HUD
- NIH
- VA
- Office on Aging
- Homeland Security

- Title XIX
- Title IVE
- CSBG
- CDBG
- Mental Health Block Grant
- Federal and State Grants

40% of DHHS Budget is from State and Federal Sources

60% of DHHS Budget is from County Sources

4

How is DHHS Organized?

o One Director

o Centralized Administrative Functions

o Moving towards single client record supported by an interoperable database

o Uniform intake form to identify all service needs – HHS offers over 80 programs with over 40 different programs with specific eligibility requirements

o Designated entire HHS entity as HIPAA covered — including social service and income support programs

HHS TRAJECTORY FOR MODERNIZATION

| Diagnosing Change Risk and Organizational Capacity | → | Strategizing and Making the Case for Change | → | Implementing and Sustaining Change | → | Reinforcing Change by Creating a Change-Centric Organization |

Design and Planning – 42 Months

Tech Investment to Operations – 36 Months

Annual Review, Change Analysis and Business Re-Engineering
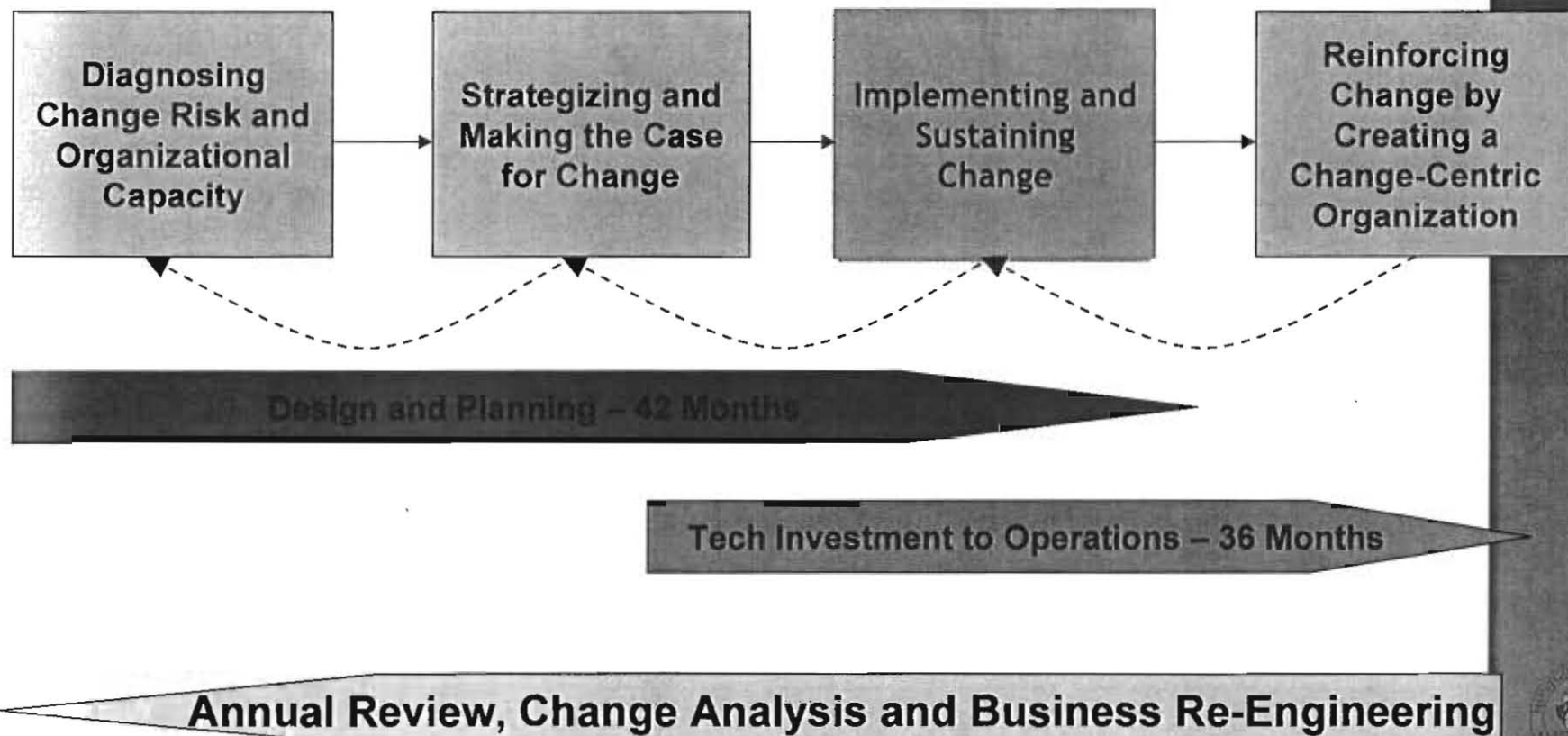
Scenario One

- Homeless diabetic woman with Schizophrenia
- Three episodes of hospitalization in last 12 months
- Hard for her to regularly take medications
- Hard for her to have nutritious meals

Services offered by DHHS to address these complex needs

a. Homeless Program
b. Mental Health Treatment
c. Montgomery Cares
d. Income Supports
e. Housing Stabilization Services

Scenario Two

o 15 Year old Latino Male
o Referred to Crisis Center after school suspension
o Indicates to counselor his desire to commit suicide
o Mother receiving mental health services
o Father believes the family troubles are a private matter
o Father is strict and bruises on client may indicate abuse

Services Offered by DHHS for this family

a. Mental health services for child, mother and family unit
b. Child Welfare Services
c. High School Wellness Center Services
d. Anger management
e. Culturally competent service delivery
f. Meaningful after school time activities
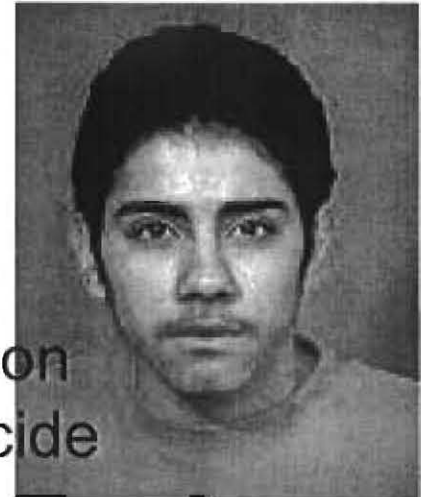
Scenario Three

⊙ 42-year old non-English speaking recent immigrant
⊙ Tests by DHHS indicate she has tuberculosis
⊙ Appears to be some domestic violence at home
⊙ Has two children ages 2 and 6 – and is pregnant again
⊙ 2 year old needs child care, family can not afford it
⊙ 6 year old has special needs and housing is unstable

Services offered by DHHS to address these complex needs

a. **Public Health TB Clinic**
b. **Child Care Services**
c. **Maternity Services**
d. **Income Support Services**
e. **LEP Services**
f. **Domestic Violence Service via Abused Persons Program**
g. **Adult Mental Health Services**
h. **Housing Stabilization Services**
i. **Education through Public School System**

Scenario Four

○ 90 year old woman identified as hoarder
○ 21 year old great-grand-daughter moved in
○ Great grand-daughter has two preschool aged children
○ Great grand-daughter a former drug user is abusing again
○ Department of Housing believes house not livable

Services offered by DHHS to address these complex needs

a. Adult Protective Services
b. Child Welfare Services
c. Early Learning and Child Care
d. Special Needs Housing Services
e. In-home Aide Services
f. Income Supports
g. Substance Abuse Treatment
h. Medical and Primary Care

Technology in HHS — A Framework for State | County Partnership
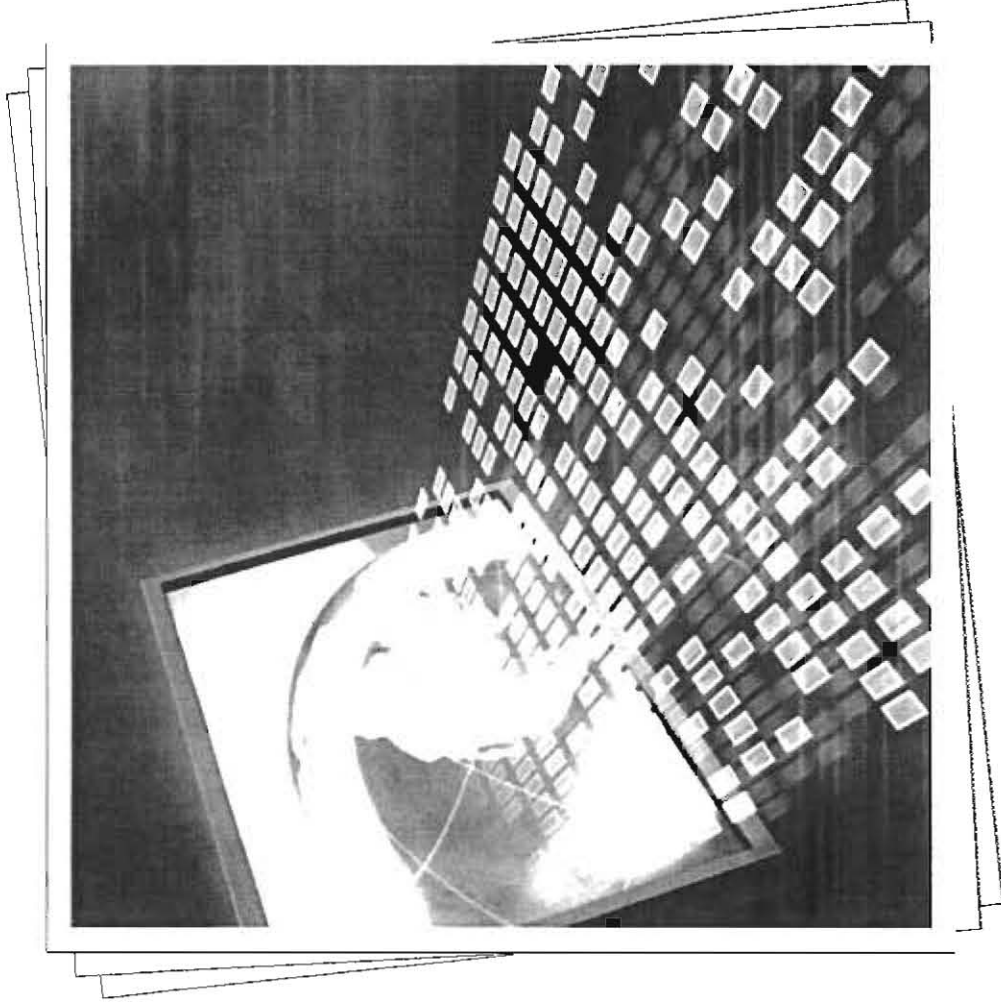
READINESS ACTIVITIES - HHS MODERNIZATION

- Assessment of hardware and software infrastructure
- Business process analysis
- Analysis of Policy environment
- Identified business and programmatic needs

- Analyzed staff capacities and readiness for change
- Developed the case for HHS modernization – business need to drive technology solution
- Urgency – increased need, diminished resources – need for a new business model supported by new technology solution

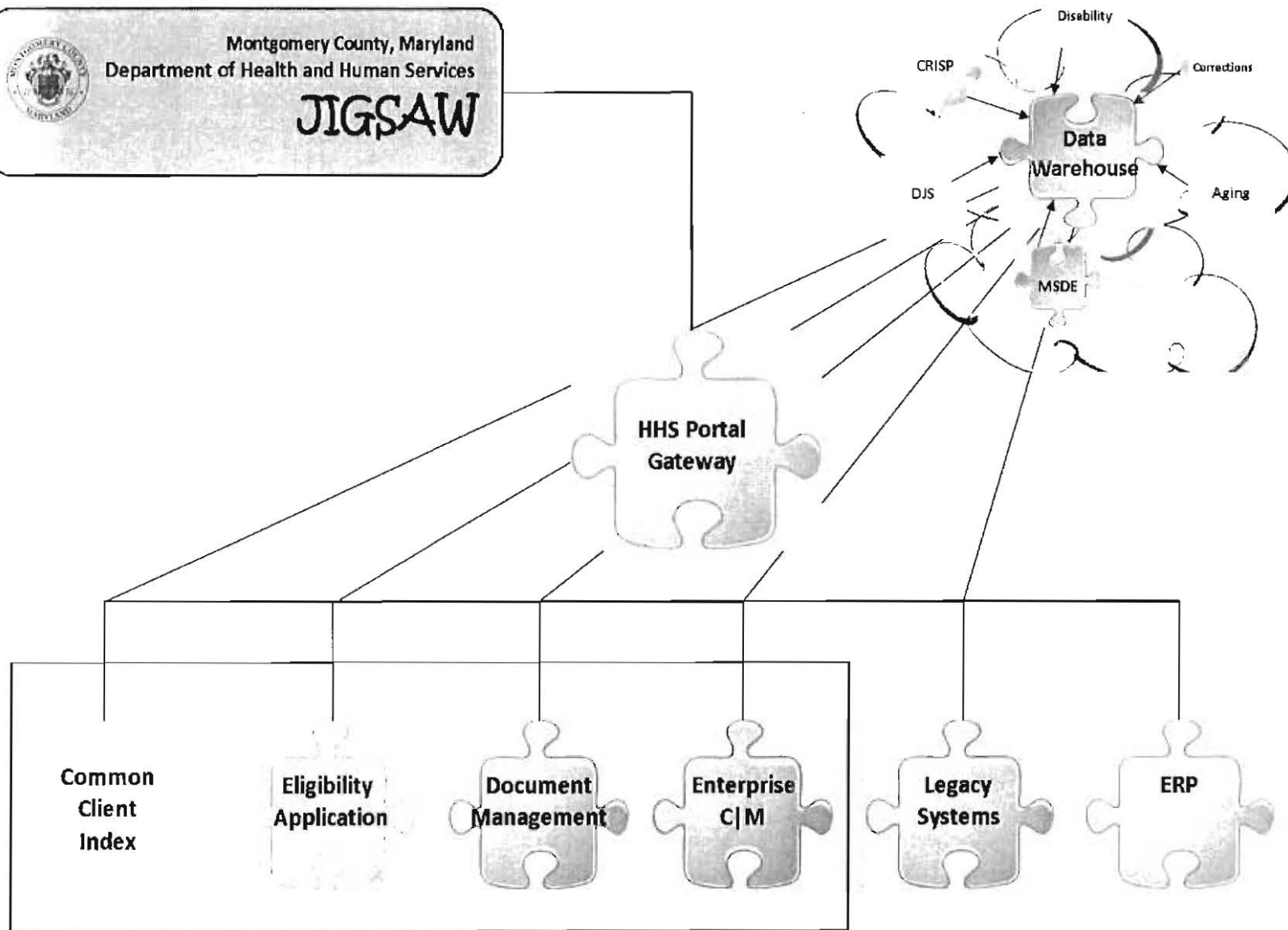# HHS ARCHITECTURE - SUPPORTS MODERNIZATION EFFORT

~1996	~2000	2009

Clinical Record System

Client Record System

JIGSAW

Presentation Layer (JSP)

Microsoft Access

Oracle Forms

Business Logic Layer

Spring IOC/DAO

Non - normalized

Oracle Database

iBATIS

Triggers

Persistence Layer

Normalized

S t r u t s
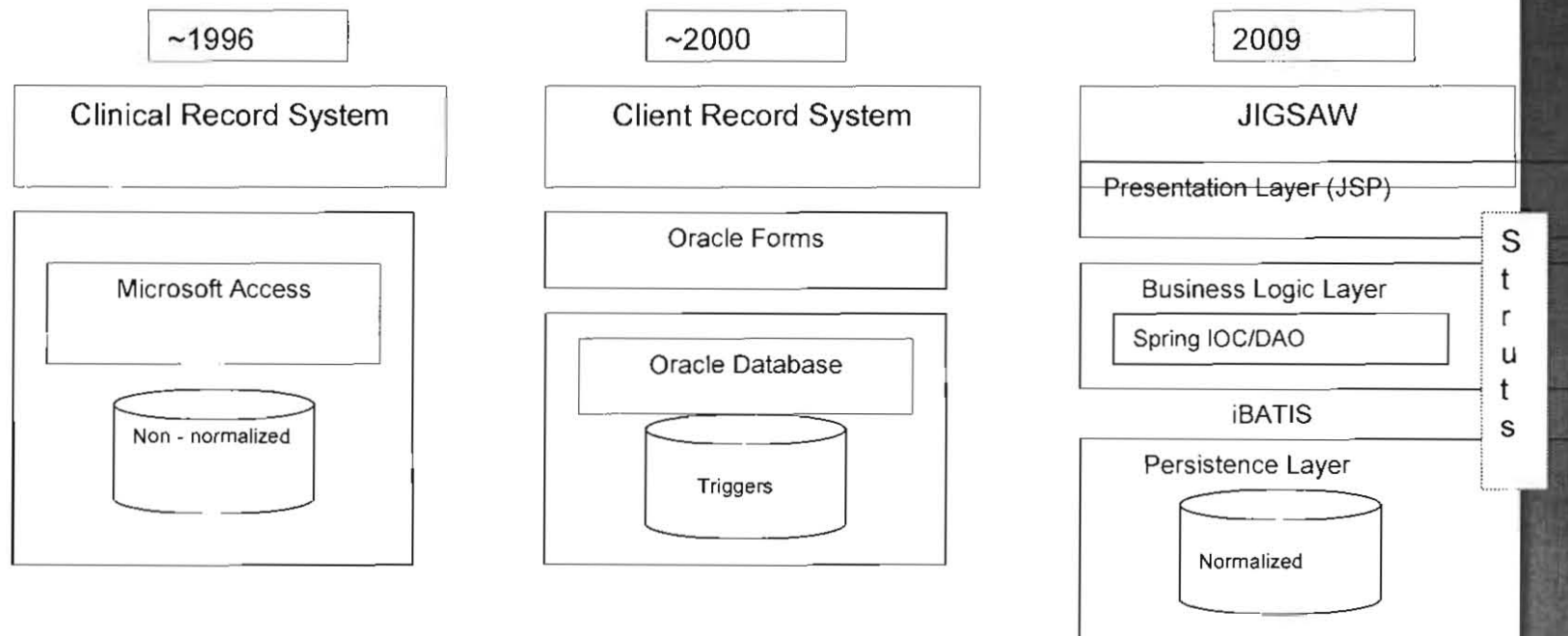
Figure 2 – Evolution of   HHS MODERNIZATION

JIGSAW

Disability

CRISP

Corrections

Data Warehouse

DJS

Aging

MSDE

HHS Portal Gateway

Common Client Index

Eligibility Application

Document Management

Enterprise C|M

Legacy Systems

ERP

COTS AND CLOUD SOLUTIONS

- Common Client Index – Universal Face Sheet – Use of VisionWare – also used by State DHMH

- One E-App- used by State for MCHIP and PAC- MCDHHS as a pilot – intend to add Food Stamps, TANF, WPA, RAP and Montgomery CARES. In out years build out remaining eligibility programs – will include Universal Facesheet, universal screening tool and needs assessment

- Digitize all HHS records – paperless environment – In years 2 and 3 of implementation – DTS has selected Zyimage as platform

COTS AND CLOUDS - CONTINUED

⊙ CASE MANAGEMENT – Still in search of a solution. Positioned ourselves for a federal pilot through the Administration for Children and Families

⊙ Gateway/portal – Internal solution AIF – poised to fulfill this function

⊙ Data Warehouse – ready to expand to support downloads with state legacy programs where real time interfaces are not possible

⊙ Maximizing ERP opportunities for enterprise integration

PROJECT INVESTMENT ANALYSIS

- Total Project Cost- $15 million, approximately
- Revenues and Grants – $4-5 million approx.
- Conservative Savings Projections -$3.5 million
- Net General Fund requirements - $7-8 million

FUNDS AVAILABLE IN FY12 - $300k

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HHS TECHMOD - $300K IN CIP

⊙ The following costs will be incurred with the $300K:

- Hire a project manager – build the project plan and begin implementation activities, such as issuing task orders, building business requirements and developing a change management plan, etc

- Hire a HIPAA auditor – to ensure that projects specifications are HIPAA and other confidentiality statute compliant

- Hire a Policy Manager – to begin to bring policies and templates into compliance with new system requirements

FUNDING OPPORTUNITIES

- State CMS grant - $6.1 million with MCDHHS as a pilot site
- Federal OMB Partnership Fund
- Foundation funding and the creation of an HHS technology fund within the Fund for Montgomery with the Community Foundation – Community Foundation lends us it's 501(C)3 status
- Drawing down maximum federal revenue for support of our technology work
- Financing of hardware and software
- Calculating Return on Investment and a re-investment strategy
- County General Fund – either through CIP or otherwise – some current revenue expectations

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MCDHHS RECOGNIZED AS A NATIONAL LEADER ON INTEGRATION AND INTEROPERABILITY

Areas of pioneering work:

- Recognition of unique structure and governance
- Policy on confidentiality and sharing of information to support integrated practice
- Developed a methodology for calculating return on investment from applying new business model
- Practice re-design from front door to back door throughout the enterprise
- Developing our technology solution as a response to business and practice need
- Creative financing strategies

Partners in Our Journey

- State Departments
  — DHR and DHMH
- State Casey Family Programs
- Stewards of Change
  — JHU Relationship
- Primary Care Coalition
  and our State HIE – CRISP and REC for EHR
  Implementation
- Primary Care Coalition
- Federal Partners
- Other Foundations and National Organizations,
  such as APHSA