
FROM ELIGIBILITY DETERMINATION AND BENEFITS PAYMENT
TO SELF SUFFICIENCY

Transitioning ACES to an Open and Flexible Environment

*A Transition Plan
for a Changing Environment*

Report of the ACES Transition Planning Work Group
December 1994

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December 1994

[LEAP letterhead]

January nn, 1995

[Committee/Body Name]
Washington State Legislature
Olympia, Washington nnnnn

Dear []:

We are very pleased to present you with the Report of the ACES Transition Planning Work Group. In [month], the Senate called for a plan to transition ACES to a more flexible architecture or open computer system. This report answers that call.

In September, a work group was formed to provide leadership and industry expertise in planning the transition of ACES. This Work Group report is the result of hard work and cooperation among many people, who believe welfare services will change substantially in the future, and that Washington's information systems can quickly respond to these changes if certain actions are taken now.

This report represents a key milestone for more adaptive information systems across the state. Upon your acceptance of this report, the transition will begin immediately. We look forward to discussing this report with you.

Sincerely,

Robert Fitchitt, Administrator
Legislative Evaluation and Accountability Program Committee
Chair, ACES Transition Planning Work Group

ACKNOWLEDGMENTS

The state recognized that transition of the Automated Client Eligibility System (ACES) to a more modern technical environment cannot be made in isolation. Consequently, the Legislature called for a partnership between agencies, and with the private sector, to develop a vision for future information systems. Over the past five months, a diverse group of industry practitioners gathered on a regular basis to craft this vision and work on a plan to get there. The participants were generous with their time and support. This report is the result of the insight and hard work of these participants, and we wish to acknowledge their contribution to the process.

- ✓ Department of Social and Health Services
 - Office of the Secretary
 - Economic Services Division
 - Community Services Offices
 - The ACES project
 - Information System Services Division
 - Management Services

- ✓ Department of Information Services
- ✓ Office of Financial Management
- ✓ Senate Ways & Means Committee
- ✓ House Appropriations Committee
- ✓ Legislative Service Center
- ✓ Legislative Evaluation and Accountability Program
- ✓ Private Sector Contributors
 - Boeing Computer Services
 - SeaFirst Bank
 - Washington Software Association
 - the SOLUTIONS Consulting Group
 - FRAMEWORK
 - Public Knowledge

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EXECUTIVE SUMMARY

This Executive Summary provides a condensed view of the Automated Client Eligibility System (ACES) transition plan presented in this report. The need for the plan was established by the Legislature, and the plan was developed over the past five months by a work group comprised of public and private sector expertise.

GOAL

“... Plan the transition of ACES to a more flexible architecture or open computer system.”

... Proviso to Engrossed Substitute Senate Bill 6244

WHY CHANGE

Welfare environment is undergoing rapid change...

- Welfare focus is changing from client eligibility determination to client self-sufficiency. However, ACES emphasizes eligibility determination and benefits payment, not self-sufficiency.
- Welfare workers don't have access to needed data and tools.
- Computer systems must rapidly accommodate new and changing welfare policies.
- An open and flexible architecture is needed for a responsive system.

HOW

With a Highly Interdependent 5-Part Plan

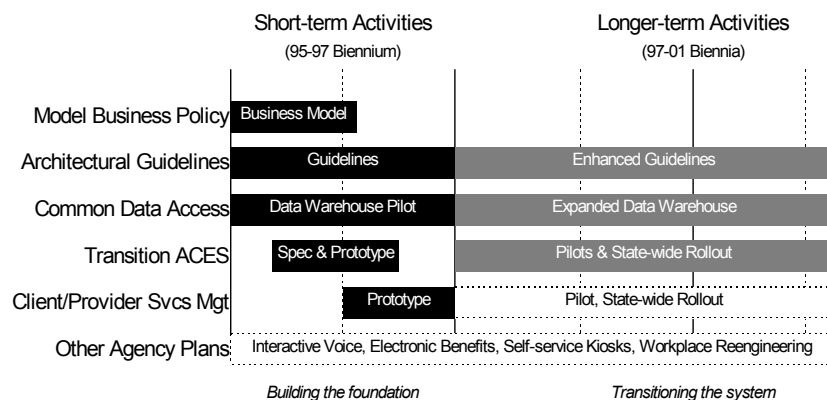
- *Model Business Policy* - Needed to assess the impact of future policy change and rapidly respond with information support. The end-product of this effort will be a high-level business policy model. It will also include a prototype applying sample policy changes to the model.
- *Establish Development & Architectural Guidelines* - Needed to form a common framework within which to develop more open and flexible systems. The end-product will be a baseline set of guidelines related to future systems projects.

- *Provide Common Data Access* - Needed to access a wider range of information to support streamlined eligibility processing and improved self-sufficiency assistance. The end-product will be a common data warehouse pilot application.
- *Transition ACES Functionality* - Needed for ACES to become a more open and flexible system. The end-product will be a transition specification emphasizing a phased, incremental approach in making the actual transition during the subsequent two biennia ('97-99 and '99-01).
- *Develop Client/Provider Services Management Capability* - Needed to support assessment, referral, placement and follow-up activities critical to self-sufficiency. The end-product of this effort will be a client services management system specification and prototype.

These five tracks represent the essential work required for the transition. Additionally, the Department of Social and Health Services (DSHS) is proposing other projects that will help support the focus on self sufficiency (e.g., interactive voice, electronic benefits, self-service kiosks, and workplace re-engineering). The ACES transition should be coordinated with these projects.

TIMING

2 Phase Incremental Approach - Covering 3 Biennia



Phase 1 -- '95-97 Biennium - test the open and flexible future architecture and build a foundation for the substantial investment to complete the transition.

Phase 2 -- '97-99 through '99-01 Biennia - focus on the actual transition of ACES to the new environment.

COST

Estimated Budget to Carry Out the Plan

Phase 1 -- \$1.6 million of state funds. Assumes 48% federal participation in a total estimated cost of \$3.1 million.

Phase 2 -- \$5.6 million to \$11.7 million of state funds. Total estimated cost ranges from \$11.2 million to \$22.9 million (assumes 48% federal participation).

These cost ranges for the second phase represent only “order of magnitude” estimates at this point. More refined estimates will be possible as work proceeds over the course of the '95-97 Biennium.

LONG-TERM BENEFITS

Reduce Caseloads and Lower Funding Levels

In Washington State, grants to Economic Services (ES) clients are projected to grow by \$108 million next biennium; medical assistance payments (primarily to ES clients) are projected to grow by \$330 million.

The key strategy for reducing welfare caseloads and funding levels is self-sufficiency.

A flexible and responsive computer system is essential to support self-sufficiency.

An Enabling Environment

Changes to practices can occur much more easily with a flexible system.

Changes to policy can occur much more quickly with an adaptive system.

Improved service to clients can occur with an open system.

Ongoing maintenance and enhancement costs are reduced with a flexible, adaptive and open architecture.

TRANSITION TEAM

The transition must continue as a collaborative effort, involving program, technical and managerial expertise.

The State will supply qualified steering committee members, project managers, analysts, and program representatives.

External Vendors must supply qualified project managers, technical analysts, and database designers. Independent oversight (quality assurance) must also be provided by an outside source.

Voluntary Advisors from the private sector and other public sector agencies have lent valuable insight to the transition planning project. Continued participation from a complement of people through the transition is envisioned.

RISKS

Schedule Delay - Moving to an open, flexible (i.e., rapid response) environment requires that significant challenges be met successfully. Employees must buy in to the objectives and obtain necessary orientation and skill sets. Executive sponsorship and management commitment must be sufficient to overcome difficult problems that will surface during the project. Procedures for contracting with vendors and for acquiring project resources must be expedited. The risk, if these challenges are not met, is schedule delay.

Scope “Creep” - By design, this project will develop new skills, reveal many opportunities for improvement, and generally foster enthusiasm. However, this enthusiasm typically makes people want more than originally planned. This project is designed to produce *essential results, in manageable increments*; it does not contain a reserve for enhancements beyond the original scope.

STARTING POINT

- ✓ Adopt the transition plan
- ✓ Approve funding for the ‘95-97 Biennium
- ✓ Institute a strong management infrastructure
- ✓ Develop detailed operational plans for each track

1. INTRODUCTION

National and state welfare reform initiatives will cause welfare policy and programs to be very different in the future than they have been in the past. Information systems must be able to accommodate these potentially sweeping changes with very little notice.

- *At the national level* - The specific change stemming from the national reform initiatives is still uncertain. However, most people expect the change to be substantial. This means that the basic architecture of ACES must be sufficiently open to rapidly address a variety of policy changes.
- *At the state level* - The State of Washington intends to transition the welfare program focus from eligibility determination and benefits payment to self-sufficiency. This means that the architecture of ACES must be sufficiently flexible to quickly provide additional capabilities in the future.

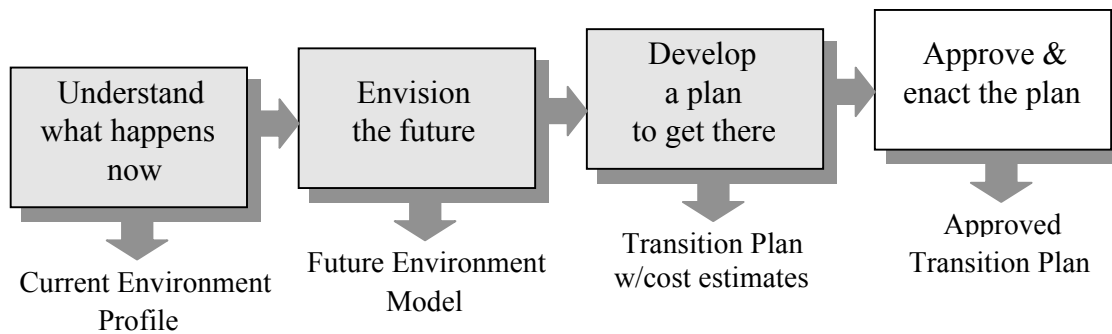
In short, the information system should not be an impediment to the rapid implementation of policy change. This report provides a plan to transition the ACES system to a more open and flexible architecture... one which will enable policy change rather than restrict it.

WORK GROUP METHODOLOGY

The budget proviso requesting development of the plan stipulated that the Legislative Evaluation and Accountability Program (LEAP) Committee form a work group of public and private sector individuals to assist in the transition planning effort. LEAP responded by convening a diverse group of highly qualified industry practitioners, representing both the public and private sector. These individuals brought specialized technical, program, application and project management expertise to the work group.

The majority of the planning occurred in joint planning sessions involving a mix of line staff, management, and information systems personnel. These sessions have taken several forms (e.g., round tables, focus group sessions, brainstorming sessions and the like). This collaborative approach allowed management, program and information system staff with differing interests to significantly influence the future technology strategy. It also raised the level of agency enthusiasm and commitment for transition planning and implementation.

The ACES Transition Plan was completed within five months, according to the following key steps:



This report signifies the completion of the third step in the planning cycle. The plan must now be approved so the transition of ACES can begin.

PLANNING APPROACH

A comprehensive list of potential transition activities was evaluated to determine which activities should be included in the transition plan. Three primary factors were considered in determining which activities should occur in the '95-97 biennium:

- *Prove the “Open and Flexible” Model* - The degree to which activities tested the components of the open and flexible architecture. This meant not only the obvious components of hardware and software, but also the shift in the department’s skill base and support infrastructure required to implement and maintain the architecture.
- *Support Business Needs* - The degree to which activities addressed known business needs. General directions anticipated from welfare reform, rather than specific policy, provided the primary focus for this factor.
- *Complement ACES Efforts* - The degree to which activities complemented ongoing ACES development and implementation efforts. This meant minimizing the demands on both technical and program staff during ACES development and roll-out, and seeking activities which could benefit from, or possibly add value to, concurrent ACES development efforts.

The development and implementation philosophy represented by this plan relies heavily on an incremental approach; using a series of shorter duration projects each with measurable outcomes, to prove (or disprove) the transition strategies. This approach emphasizes early use of “*proof-of-concept*” prototypes and pilots. It is intended to deliver concrete and measurable results which can be gauged for effectiveness prior to the commitment of large sums of money. Consequently, pilot projects and prototypical methods are important aspects of the plan. The incremental approach is deliberately intended as an alternative to the “grand design” approach which has failed so spectacularly on many government automation projects in the past.

2. THE FUTURE MODEL

The future model couples the need to support self-sufficiency with the opportunities brought by more modern information technology. The result is an open and flexible environment, whereby policies can be rapidly adapted to changing societal needs, without the information systems becoming an impediment.

To achieve this balance, the transition planning team simultaneously considered the future business vision and the future technology vision. The interdependence of the business and technology visions became increasingly apparent as the view of the future began to emerge.

THE BUSINESS

The Governor and Legislature of the State of Washington have clearly defined a changing role for public welfare. HB 2798 specifies that “income and employment assistance programs must emphasize the temporary nature of welfare and set goals of responsibility, work, and independence.” HB 1197 and HB 2798 will require the Department of Social and Health Services (DSHS) to re-focus its resources from an income maintenance system to an employment support system.

Within DSHS, Economic Services is in the process of developing the Employment & Family Support Initiative. This initiative builds on the goals and principals articulated in HB 1197 and HB 2798, and proposes next steps for Washington in support of economic self-sufficiency and reducing poverty. The following table presents highlights from Economic Services’ initiative, and describes implications on programs and processes.

The business vision	...and what it means
<p>1. Welfare to Work</p> <p><i>If we want and expect people to succeed at work, the welfare system must become an employment support system.</i></p>	<ul style="list-style-type: none"> • Clients will be able to explore the impacts of employment on their overall well-being. Workers and clients will develop “what if” scenarios, so that the clients can understand how health care benefits, the Earned Income Credit, and other non-assistance benefits will supplement wage earnings. • Reporting procedures for working recipients will be simplified, to remove paperwork burdens associated with taking a job. • Clients will receive information about child care information services, referrals, and payment authorizations through local agencies. • Services to employed individuals will be provided for 12 months, to improve job retention and help workers to succeed. • Administrative loopholes causing overpayments when a client

The business vision	...and what it means
	<p>goes to work will be eliminated.</p> <ul style="list-style-type: none"> Better access to quality child care will be supported.
<p>2. Connect with Business & Economic Development</p> <p><i>A program with the goal of employment must be closely connected with employers, local communities, and economic development efforts.</i></p>	<ul style="list-style-type: none"> Communities will play a much larger role in the delivery of welfare services. Linkages between the state’s public welfare system and community social and support services will be strengthened. Contracts with service providers will be performance-based. Employers will receive tax incentives to hire, train, and retain welfare recipients. The department will identify, market to, support employers who elect to participate. Communities will be responsible for planning for welfare-to-work programs and services that are relevant to their local areas. Communities will receive key data and plan monitoring tools from the department.
<p>3. Support Mutual Responsibility</p> <p><i>Public assistance is temporary: HB 2798 requires reducing public assistance grants after four years. We will support economic independence by actively working with clients to assess barriers, develop an agreed-upon self-sufficiency plan, and carry out the plan in a collaborative manner.</i></p>	<ul style="list-style-type: none"> All non-exempt AFDC clients will be assessed. A family self-sufficiency plan will be developed for all clients. Welfare clients and DSHS will share responsibility for moving to economic independence. Clients will contract with the department to take steps toward economic independence. The department will provide access to resources to ensure clients can reach their goals. The contract will recognize and support incremental progress toward this goal. AFDC recipients will receive orientations on employment options, family services, and family planning within 60 days of grant approval. More intensive case management services will be provided for pregnant and parenting teens. Actions will be taken to encourage non-custodial parents to pay child support.
<p>4. Prevent Teen Pregnancies & Support School Completion</p> <p><i>Reducing the number of teen entrants to the AFDC program and decreasing subsequent pregnancies for teen parents are essential to making a long-term, positive difference.</i></p>	<ul style="list-style-type: none"> Pregnant and parenting teens will receive intensive case management services to support family functioning and decrease subsequent pregnancies. High school/GED will be mandated for those young parents who have not completed high school.

The business vision	...and what it means
<p>5. Strengthen the Agency’s Focus on Economic Independence</p> <p><i>Fulfilling our mandate and mission within an environment of limited resources means we must make fundamental changes in how we do business. We must restructure the service delivery process to place greater emphasis on achieving economic independence, replace inefficient ways of doing business to free up staff time, and redirect resources to activities which provide the most help and support for family economic independence.</i></p>	<ul style="list-style-type: none"> • While DSHS will continue to maintain a safety net of limited-term benefits, the focus of welfare services will shift to client independence through employment. • The definition of “welfare services” will be expanded to include employment and social services needed to reach economic independence. • Staff will be trained to focus on self-sufficiency and economic independence. • Services will be targeted to ensure the best use of limited state resources. • Linkages to social services, child support and other assistance programs will be strengthened. Workers will have access to accurate information about available resources and providers, and will be able to provide better information and referral services to all CSO visitors. • Application time will be reduced. Employment assessment will be automated, as will applications for child care. • Management will have the ability to extract detailed information about caseload characteristics. • Workers will have the flexibility to share client information (within the extent of the law) with other agencies as necessary to carry out the independence plan.
<p>6. Get the Right Benefits to the Right People, Quickly</p>	<ul style="list-style-type: none"> • Electronic tools will be used to transfer benefits to clients • Increased emphasis will be placed on identity verification, fraud deterrence & fraud detection methods. • Persons with special needs will be assisted.

THE SYSTEM

The Legislature has clearly defined a changing environment for welfare technology. The proviso to Engrossed Substitute Senate Bill 6244 specifies that “...a public and private sector work group plan the transition of the department of social and health services’ automated client eligibility system (ACES) to a more flexible architecture or open computer system.”

The need for a more flexible and open environment was reaffirmed by the transition planning work group through five months of intensive work. Through this work, the transition team developed a view of future welfare technology. Several important goals were identified for the future technology model:

1. Utilize more modern technologies for future development.
2. Support sharing of information between DSHS programs, providers and clients through enhanced network architectures, encapsulation of existing systems and development of common data definitions and exchange formats.
3. Support development of future system features by end-users.
4. Piggyback off of other state technology efforts.
5. Purchase and integrate package components wherever possible.
6. Evolve the legacy systems rather than rebuild them from the ground up.
7. Integrate legacy and new systems under a common software architecture.
8. Preserve the investment in existing systems to the extent possible.

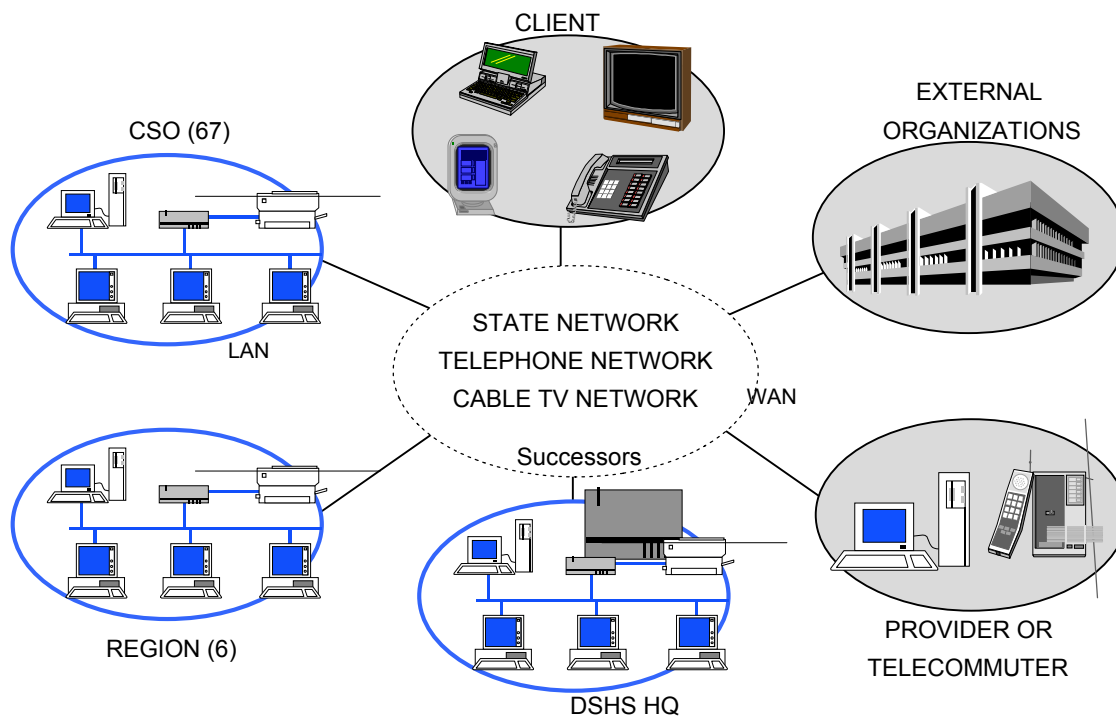
The proviso used the terms “open” and “flexible” to characterize the future computer environment. These terms proved useful in crafting the future technology model, since they distinguish the more adaptive systems of the future from the legacy systems of the past. The following table presents the future technology model, and describes the implications to future welfare systems.

The technology model	...and what it means
1. Open computer system	<ul style="list-style-type: none"> • Compliance with industry norms and directions • As non-proprietary as possible • Ability to seamlessly cross hardware and software boundaries • Platform independence for data and processing • Plug and play components • Reusable data and processing • Portable applications and data
2. Flexible architecture	<ul style="list-style-type: none"> • Support for migration to emerging norms and standards • Easily accessed by community providers and clients • Adaptive security • Applications, hardware and software are scaleable • Accommodates rapidly changing policy and procedures • “User Friendly” • Customizable interfaces

The technology model	...and what it means
	<ul style="list-style-type: none"> • Adaptive technology accommodating physical/cultural differences • Easy access to data and reporting tools • Dynamic allocation of resources

In the future architecture, processing is performed by specialized components (servers) for requesters (clients), as shown in the following figure:

Future Technology Model



Under the future architecture, each of the user groups depicted in the figure can access and share information through the state network, through the public telephone network, and perhaps through the cable TV network. For example:

- Each of the 67 Community Service Offices (CSOs) will have access to automated processes and data through PC workstations connected by local area networks at each CSO. These in turn can be linked to each other and to other user groups via the wide area network. A standard graphical user

interface will allow each CSO user to access eligibility and payment information, as well as service planning, employment, and outcome measures information for both clients and service providers.

- Each of the six regions will have access to information kept within that region as well as to centralized information (e.g., eligibility determination) to support their needs. This architecture will put data and processing on whatever platform is most appropriate for the intended use; local data and processes on local servers and workstations, and central, department- or program-wide data on centrally-located servers and workstations.
- DSHS headquarters will access state-, department-, and program-wide information from a variety of sources through standard reports as well as through flexible ad hoc reporting tools. These flexible inquiry and reporting tools will also be available to CSOs, and will use data originating from a variety of sources.
- Providers and telecommuters can access various system services utilizing a variety of remote workstations and portable computing devices.
- Selected external agencies will be able to access and provide information to the department by telephone network dial-up or other wide area network links. Employers, Community and Technical Colleges, and other state and local agencies may be valuable information sharing partners.
- Clients will also become direct users under the new architecture. They will be able to access, and eventually add and update, information directly with the department's systems using publicly-available remote workstations, kiosks, and telephone voice response capabilities. Additionally, benefits will be issued electronically to the customer.

The services provided to an end user by a business application may be provided by many server platforms each specializing in a certain service (e.g., separate servers might exist for eligibility calculation, information retrieval and report generation). This permits processing to be distributed to the most efficient server components. This has the additional advantage of permitting existing systems to be utilized as servers in the future technology environment. Thus, systems which provide features which are currently needed can be incorporated into the architecture, thereby minimizing the number of applications which have to be rewritten.

WORKING TOGETHER

The following examples convey some of the advantages offered when the business and technology visions are combined into a single model for the future:

Advantage	...of technology and business working together
<i>Increase the time for direct client service through paperwork reduction</i>	A substantial portion of the case worker’s time is currently spent on non-productive paperwork or duplicate data retrieval and entry. The future welfare business will require greater client contact with the worker. Utilizing technology to reduce paperwork or duplicate data entry makes more time available for direct contact with the client.
<i>Become more informative</i>	Many other systems have information that will be valuable to the case worker in supporting client self-sufficiency. Some of this information resides within DSHS, some within other state and local agencies, and some with private sector providers. The future system could make this information available to the case worker, enabling them to be more informative to their clients.
<i>Coordinated service delivery</i>	Increased community involvement in providing services will require more coordinated delivery of these services. The future system will contain a task record which will enable providers and case managers to assure appropriate services are being delivered to clients, and that these services are effective for each client.
<i>Rapid response to changing policy</i>	Systems developed using traditional methods and technologies are often impediments to needed business change. In contrast, systems developed using more modern methods and technologies can readily accommodate change in business conditions. This will be increasingly important as national and state welfare reform initiatives materialize, and a rapid information systems response is expected.
<i>Improved performance management</i>	Ensuring case- and program- level performance will be much more important in the future welfare environment. Improved access to information will be necessary to assess these performance measures. Access to needed information will be simplified, and occur much more quickly, in the new system using proven “user friendly” inquiry capabilities.
<i>Less end-user training</i>	Most systems currently in operation have very unique look-and-feel characteristics, beginning with the basic log-on sequence and continuing through the basic use of the application. This generally requires a substantial training investment for each new system user to learn the peculiarities of each different system. The new environment should have common look-and-feel characteristics, dramatically reducing the initial training costs

Advantage	...of technology and business working together
<i>Self-reliant clients, providers and telecommuters</i>	<p>and “time-to-service” for new end-users.</p> <p>Both clients and providers will be encouraged to become increasingly self-reliant in the future. Direct access to the agency’s information will support self-reliance. For example, clients could enter information directly into the system and access status information themselves, contracted providers could file client progress reports directly into the system, and telecommuters (e.g., case workers in the field) could access basic system features and functions from different locations. The future system simplifies entry and access of appropriate information by a more diverse audience from a much wider range of locations.</p>
<i>Reduced systems costs</i>	<p>Future social services systems will be increasingly viewed from a common perspective and become more integrated than in the past. Capabilities and data which exist in one system (e.g., JOBS) will be reused in other systems (e.g., ACES), providing significant savings during both the initial development and subsequent enhancements. Additionally, the ongoing operating costs should be reduced, as the end-users become increasingly self-sufficient. Moreover, as systems components become integrated, the time required to consider a policy change will be dramatically reduced, providing additional labor cost savings.</p>

The action plan which follows combines DSHS’s business vision with the future technology model into a single integrated approach for the transition of ACES. Through the use of prototypes and pilots, it ensures that these advantages can be gained in the most cost effective manner possible.

3. ACTION PLAN

The transition from an environment where eligibility determination and benefits payment is the primary focus, to an environment where economic self-sufficiency becomes the primary focus will be a significant challenge. Adding to the challenge is the fact that national welfare reform initiatives are still emerging, and the future impact is still unclear. This underscores the importance of *preparing now* for an uncertain future.

The previous chapter discussed the vision for future services in the State of Washington. It provided a future technology model and demonstrated the advantages gained when approached as a unified effort. This chapter presents a five-point plan to transition ACES to the future model.

The transition action plan addresses both the business and technical perspectives, and provides an appropriate balance of structure and flexibility. The plan relies heavily on the use of prototyping and piloting as a means of learning and validating the future model before committing large sums to its implementation.

Five key interdependent tasks comprise the overall transition plan, each resulting in tangible and measurable milestones:

1. **Model Business Policy** - Develops a model of Economic Services processes and data so that a quick assessment can be made of the impact of policy change on its information systems.
2. **Establish Development & Architectural Guidelines** - Establishes practical guidelines and standards for procuring, developing, managing, and supporting products and services which follow the state's future technology model.
3. **Provide Common Data Access** - Builds a warehouse of data, from both internal and external sources, and provides reporting tools to rapidly access information needed to support client self-sufficiency.
4. **Transition ACES Functionality** - Re-engineers the ACES design into modular software components and transitions it to the future technology architecture in a rational sequence.
5. **Develop Client/Provider Services Management Capability** - Supports service planning, assessment, monitoring and measurement of outcomes. Integrates employment information, and monitoring and assessment of various service providers, to support self-sufficiency counseling.

In addition to the ACES transition, DSHS is planning other technology enhancements which will also support welfare reform. Examples of this include:

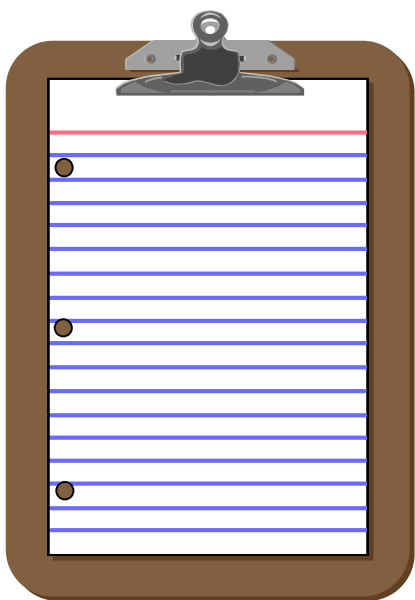
- *Electronic benefits transfer* to expedite distribution and control of benefits.

- *Interactive voice response* to permit people to access information from more convenient locations such as their homes
- *Self-service kiosks* - The Department of Information Systems recently began installing kiosks throughout the state. These kiosks could provide direct entry of information to the system and direct access to benefits status and employment and provider information.

Because these needs are being addressed elsewhere, they have not been duplicated within the scope of the ACES transition. However the ACES transition will be coordinated with the other automation projects to ensure movement toward an integrated and responsive information environment in the future.

MODEL BUSINESS POLICY

The importance of the move from eligibility determination and benefits payment to economic self-sufficiency is clear. The Legislature expects information systems to be available quickly and at reasonable cost to support these future policy changes. However, traditional approaches to building these systems place too little emphasis on understanding the business.



A different view of the business is needed to build more responsive systems in the future; a view that quickly reveals the impact of a policy change and is understandable by both the customer and architect.

As a blueprint provides a common reference for the real estate customer and general contractor, a business model provides a common reference for the information system customer and analyst/engineer. Change in customer preference can be quickly assessed by the general contractor, based on the blueprint, and adaptations made more quickly in the building. Similarly, change in business policy can be quickly assessed by the analyst/engineer, based on the business model, and adaptations made more quickly in the system.

In this task, the Economic Services core business data and processes will be modeled, so that the business is understood. The integrity of the business model will be tested and the value verified. This will be accomplished by applying sample policy changes to the model to determine how quickly the impact on the information system can be assessed, and how rapidly the changes could be made.

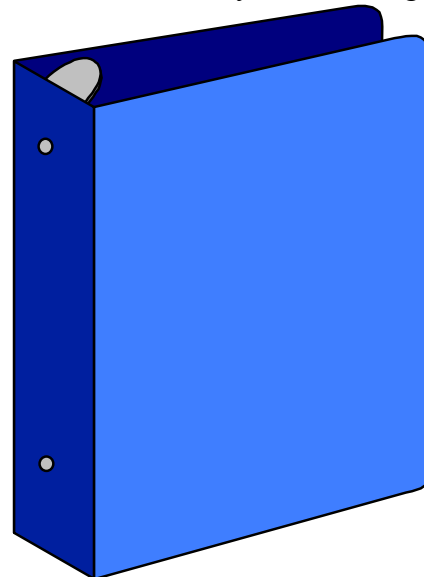
This is an important milestone in the transition plan for two reasons: 1) to ensure the future architecture fits the business needs, and 2) so that future changes in policy can be quickly assessed and adaptations rapidly made. It is worth noting that the model and skills gained in this task will provide a valuable foundation for agency-wide information integration, and information sharing with private sector partners.

The *Development and Architecture Guidelines* and *Transition ACES Functionality* tasks rely on the business perspective and analytical skills gained in this task. This milestone will be achieved by the middle of the first project biennium.

ESTABLISH DEVELOPMENT & ARCHITECTURAL GUIDELINES

The future technology model will utilize very different products and practices than traditionally built systems. This task will establish practical standards and guidelines for systems which follow that model.

The general contractor understands what materials and structural characteristics should be applied to the customer's model. Similarly, the information systems manager knows what technologies and architectural characteristics should be applied to the business model. The general contractor also considers the capabilities of the customer to use and maintain the building facilities when recommending what materials to buy and how to incorporate them into the design. Likewise, the information systems manager considers the capabilities of the customer to use and maintain the system when recommending what technologies to buy and how to use them.



If practical guidelines are available, these choices can be made relatively quickly, and without using the customer's new building as a proving ground for all of the different materials. Guidelines will be needed to select the proper technologies in the future model. Standards will be needed to design the future architecture with the maximum flexibility and openness to accommodate changing business conditions in the future years. These guidelines will span hardware, software, and network products as well as specialized professional services associated with the agency's future technology model.

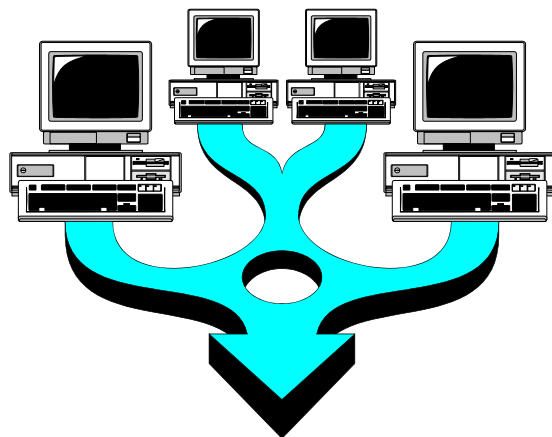
The *Transition ACES Functionality, Provide Common Data Access, and Develop Client/Provider Services Management Capability* tasks all rely on the standards and skills developed in this task. A working set of standards will be completed by the end of the first project biennium. Once the baseline standards and guidelines have been developed, they will be augmented throughout the ACES transition. As new technologies emerge

and additional experience is gained the related standards and guidelines should be updated so that the state doesn't institutionalize dated technologies or onerous practices.

It should be noted that the standards established in this task are not unique to ACES; they are specific to the future technology model. Therefore, they will be valuable to any systems development, enhancement or maintenance effort which follows the agency's future technology model.

PROVIDE COMMON DATA ACCESS

One of the most frequently cited limitations in changing a business to meet emerging customer needs is difficulty in obtaining needed information. The information which has been needed to support eligibility determination and benefits payment in the past will not be sufficient to support self-sufficiency in the future.



This task addresses both *availability* of needed information and *access* to that information in an intuitive and timely manner. A “data warehouse” will be created, utilizing a relational database on a server platform. Core ad hoc reporting capabilities will be established early in this task. Access to a number of selected data sources, both internal and external to the agency, will be provided, effectively broadening the data base available for ad hoc reporting. As the core technologies and related skills are developed, additional

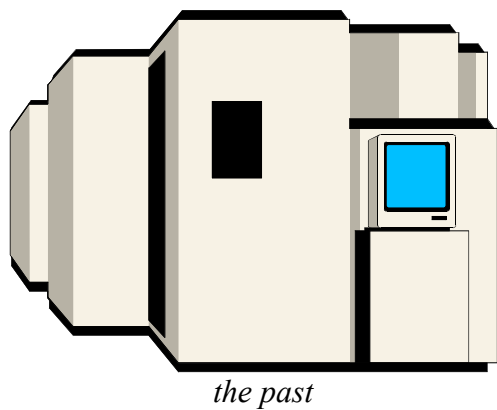
capabilities will be added to access and share information with other departments, agencies, and business partners.

The *Client/Provider Services Management* task is particularly dependent on the data and skills gained in this task. A working baseline will be completed by the end of the first project biennium. Once the basic data warehouse has been proven, it will be augmented throughout the ACES transition. It should be noted that the data warehouse established in this task will contain data which are often needed by other human services programs. Therefore, this milestone can help the agency in its efforts to become an integrated human services system in the future.

TRANSITION ACES FUNCTIONALITY

The Legislature affirmed the need to transition ACES to a more open and flexible environment, so that it would not be a constraint on changing policy in the future. This

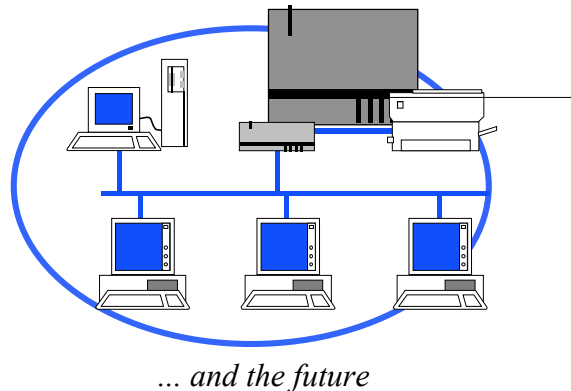
task will disaggregate the existing ACES design into modular software components, so its current functionality can be transitioned to the future model.



Transition of the functional components will be sequenced to complete the transition as rapidly as possible without disrupting ongoing ACES operations. A tangible working prototype will be developed to validate the approach before the actual transition occurs.

ACES will continue to operate “as is” during the ‘95-97 Biennium. Activities in this period are intended only to prove the future concept, before committing substantial funding to the actual transition.

The transition specification and prototype will be completed in the first biennium. Much more accurate cost estimates for the full transition will also be available within this biennium. The transition will occur over the subsequent two biennia, with the full transition complete approximately six years from now.



DEVELOP CLIENT/PROVIDER SERVICES MANAGEMENT CAPABILITY

A client/provider services management system is needed to support case planning, assessment, and measurement of outcomes to keep pace with the shift in welfare emphasis to self-sufficiency. This task will lay the groundwork for the subsequent development or acquisition of this capability by developing a working prototype of what the state wants. By prototyping this capability we will confirm our prototyping and development capabilities under the future technical model. By prototyping this capability we will test the future model in an area of real business need, before fully committing ACES to this model.

This task will provide an assessment of existing case management systems, to determine if a working baseline can be acquired rather than built. An incremental approach is emphasized in this task as with all others. This includes early prototyping for tangible demonstration of concepts and concrete evidence of feasibility before a future investment is requested.

This task will occur fully during the first project biennium. Subsequent efforts to purchase or develop this capability will be accomplished outside of the ACES transition project.

The benefits of a move to a more responsive system architecture will be substantial. However, the effort and funding required to gain the benefits will also be substantial. The costing approach outlined in the following section separates the project into key phases, to ensure that the future concept is proven in the first phase before making the substantial investment in the second phase.



4. COSTS AND BENEFITS

ACES will be transferred and implemented throughout the state during the '95-97 biennium. Preparation for transitioning ACES to the more open and flexible environment will be occurring during this period as well. Once ACES has been implemented and is considered stable, the actual transition will occur. The new architecture will be in place by the end of the '99-01 biennium.

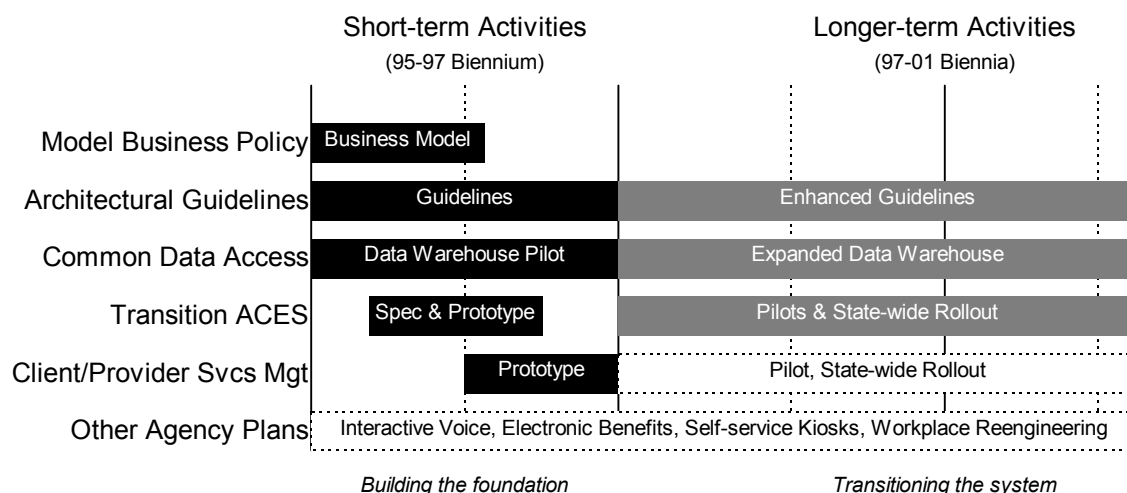
TRANSITION SCHEDULE

The Legislature confirmed that an incremental approach to the transition was preferred over the “all or nothing” approach which has been so costly in the past. An incremental approach yields tangible results earlier and manages project risk better. Therefore, the transition of ACES to the new architectural model will occur in two phases:

- **Phase 1 -- '95-97 Biennium** - The primary intent of this phase is to test the open and flexible future architecture and build a foundation for the substantial investment to complete the transition.
- **Phase 2 -- '97-99 through '99-01 Biennia** - The primary focus of this phase is the actual transition of ACES to the new environment.

The following Gantt reflects the schedule for the five key transition tasks. The tasks represented by white bars indicate tasks which fall outside of the scope of the ACES transition project, but should be coordinated as a department-wide effort.

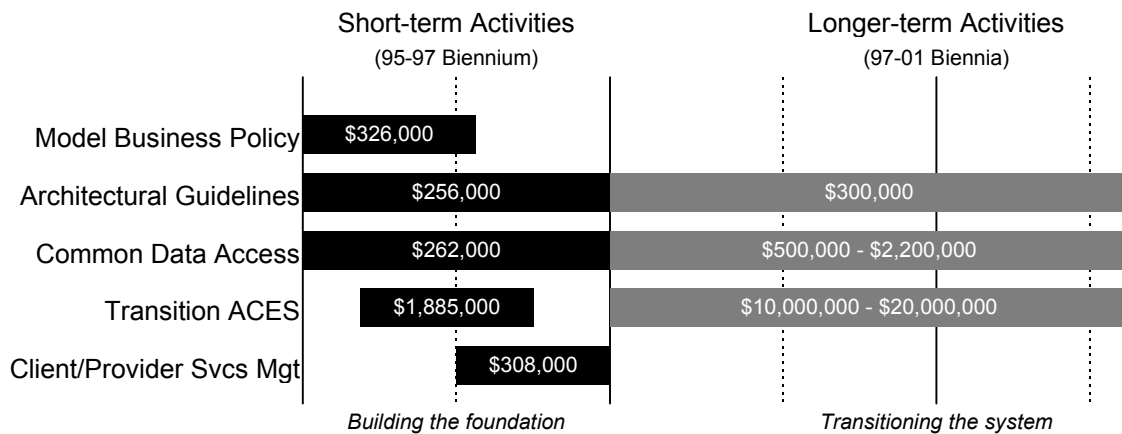
Milestones in the ACES Transition



As this chart indicates, the five tasks follow an incremental approach. The entire five-point plan spans three biennia, beginning with the '95-97 biennium. To meet this schedule, work on the short-term milestones must begin immediately. The short-term activities will produce tangible and measurable results, by which the future work effort and funding level can be estimated. Some of the foundation pieces will be available by the end of FY96, all will be available by the end of FY97. Full state-wide availability of the improved system will be available by the end of FY01.

ESTIMATED COSTS

The estimated costs for the transition include state program and technical resources, and contract resources for development and independent oversight roles. Total transition costs are summarized as followings:



Phase 1 - 1995-1997 Biennium Totals

The estimated costs for the first biennium of the ACES transition project are as follows:

Task	Task Cost	FY 1996	FY 1997
Model Business Policy	\$326,278	\$326,278	\$0
Architectural Guidelines	255,898	157,949	97,949
Common Data Access	262,336	211,752	50,584
Transition ACES Functionality	1,885,005	585,801	1,299,203
Client/Provider Svcs Mgt	307,732	0	307,732

Total '95-97 biennium:	\$3,037,248	\$1,281,780	\$1,755,468
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The investment in the first project biennium (i.e., Phase 1) will provide the following tangible results:

- ✓ A baseline model of Economic Services core business processes and data. This will begin to provide a common reference for the customer and builder to use when making changes to the system in the future.
- ✓ A foundation set of guidelines for using more modern development methods, and standards for building more flexible architectures.
- ✓ An initial data warehouse, with sample ad hoc reporting capabilities.
- ✓ A detailed transition approach, validated with working prototypes
- ✓ A working prototype of client/provider services management capability. This will clarify the functional scope, look and feel expectations, and be suitable for procurement of contract resources.

Phase 2 - 1997-2001 Biennia Totals

The estimated costs for the subsequent two biennia of the ACES transition project are as follows:

Task	Low Estimate	High Estimate
Architectural Guidelines	\$300,000	\$300,000
Common Data Access	500,000	2,200,000
Transition ACES Functionality	10,000,000	20,000,000

Total '97-01 Biennia: \$10,800,000 to \$22,500,000

The investment in the second and third project biennia (i.e., Phase 2) will provide the following tangible results:

- ✓ Enriched guidelines for development, maintenance, or enhancement of systems following the future technology model. The guidelines resulting from this phase should be valuable for any systems in the move toward a more open and flexible environment
- ✓ A more robust repository of data from a wider range of sources. This will enable a much better response to changing business conditions, and support a much higher degree of integration.
- ✓ A completed ACES transition, according to the plan developed in Phase 1.

Note that costs for work on the *Model Business Policy* and *Client/Provider Services Management* tasks have not been included in the '97-01 biennia estimates. These tasks will revert to agency responsibility, outside of the ACES transition.

The cost estimates for the second phase represent “order of magnitude” estimates only. The activities in the first phase will provide much more knowledge of the required investment in the second phase. Additionally, ACES will be implemented during the first phase, providing a more accurate assessment of the effort required to transition it to a more open and flexible architecture. Therefore, more accurate cost estimates are to be provided toward the end of the first phase, based on additional knowledge gained.

EXPECTED BENEFITS

The transition will move ACES to a more open and flexible computer system, as required by the proviso to Engrossed Substitute Senate Bill 6244. It will also set in motion a technology vision which is reflected in DSHS’s Information Technology Plan. It will provide methods and skill sets which are needed throughout the department, indeed throughout the state, in other technology implementations.

The state can expect a number of specific benefits once the ACES transition has occurred. For example:

Rapid Response to a Changing Environment

The transition plan moves the agency to an architecture which can be expanded and enhanced incrementally, quickly, and cost-effectively. This avoids many of the barriers and long lead times commonly associated with traditional legacy architectures. Processing power, databases, applications, and network components can be added and deployed where and when they’re needed, with minimal disruption to the technical infrastructure.

The Transition Plan is designed to shift the agency’s technical infrastructure and skill base to take advantage of modern, rapid development tools and techniques, such as prototyping, CASE, and object-oriented tools and techniques. These technical methods will be supported by data and business process models, which will greatly facilitate the identification of impacts resulting from policy changes.

The Transition Plan will “open up” the agency’s systems and networks to facilitate access to a much broader range of information. Users will be able to access data from a variety of sources in a standardized, friendly way. This capability will be crucial in supporting the move towards self-sufficiency, as access to extensive client and provider information will be necessary.

Reduced Caseload Growth

Each year, federal and state programs deliver almost \$500 billion in cash benefits and food assistance¹. In the State of Washington, annual grant payments exceed \$550 million, and medical assistance payments (primarily to welfare clients) exceed \$1.4 billion. Moreover, grant payments are projected to *increase* by \$108 million next biennium. In the same time period, medical assistance payments are projected to grow by \$330 million.

A key national strategy for reducing this growth in welfare-related payments is to help clients become economically self-sufficient, viewing welfare reciprocity as a transitional period of preparation for self-sufficiency, rather than a way of life.

With the assistance of a more flexible information system, and access to a broader range of information, case workers can concentrate more of their time on providing self-sufficiency counseling and assistance. This in turn, should reduce the rate of welfare-related benefits payment and case load growth.

Reduced Costs

The cost of traditionally built legacy systems is high. The initial investment is high, and the cost of maintenance grows disproportionately with demand. In contrast, the cost of more modern systems are comparatively low. The initial investment may be moderate to high, but the cost of maintenance is substantially lower in proportion to demand.

As the agency moves to the future technology model, the cost required to respond to future changes can be reduced significantly.

Improved Effectiveness and Efficiency

The ability for management and staff to spend their time on the most important work become more critical as the focus on self-sufficiency demands increasing amounts of their time. The transition of ACES to the future technical model will foster both effectiveness and efficiency. Specifically, the new technical model will allow better response to unplanned information needs by providing easier and more flexible access to data in a wider variety of formats. Program evaluation and client outcome data will be readily available, and client data among various business functions will be more accessible, allowing workers to spend less time auditing manual files.

Improved Client Service

Improved service to the client is not a new goal; however, the transition of ACES to a more modern architecture could significantly aid in achieving this goal. Lobby congestion and

¹ “Creating a Benefit Delivery System That Works Better & Costs Less;” Report of the Federal Electronic Benefits Transfer Task Force; Washington D.C., May 1994

wait times will be reduced by allowing clients to access automated information directly using kiosks, remote workstations, and telephones using voice recognition and processing technology. Workers will have access to a much broader set of information to help clients find employment and training. The return visits required of clients can be reduced because of automated follow-up and maintenance procedures.

5. PROJECT MANAGEMENT

Effective management will be key to the success of the ACES transition. Without the proper management infrastructure in place, project risks cannot be effectively managed and the transition plan cannot be successfully implemented.

MANAGEMENT INFRASTRUCTURE

Management infrastructure in this context refers not only to the composition and structure of the project necessary to successfully implement the transition plan, but also to the issues of sponsorship, level of participation, and communication required. All projects are different from day-to-day business activities in many ways. Moreover, technology projects are different from typical line-of-business projects in many ways. For example:

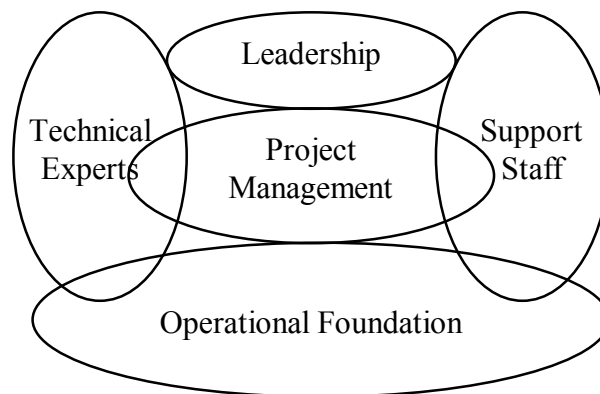
- *Timeframe* - Management of day-to-day business process is continuous, since a business is presumed to be a going concern. In contrast, management of a technology project is periodic, since a project is presumed to go away once completed.
- *Communication* - Management of day-to-day business process tends to reflect hierarchical communication, with the decision protocol apparent in most businesses. In contrast, management of a technology project tends to encourage informal communication, seeking whatever knowledge is required to get the job done.
- *Authority* - Management of day-to-day business process tends to rely on formal and direct lines of authority. In contrast, management of a technology project tends to rely on referent and indirect authority.
- *Perspective* - Management of line-of-business projects tends to have a historical perspective, since business projects are often intended to solve pressing problems. In contrast, management of technology projects tends to have a future perspective, since they are often intended to yield opportunity (e.g., strengthen service, enhance product quality, enable more informed business decisions).
- *Skills* - Management of day-to-day business processes tends to depend on complementary skills among team members, oriented along functional lines. In contrast, management of a technology project tends to depend on contrasting skills, oriented along diverse technical or analytical lines.
- *Attrition Impact* - Management of day-to-day business process tends to be less affected by the departure of an individual, since others can typically perform their duties acceptably. In contrast, management of a technology project tends to be very affected, since most project participants have unique skills,

are there for a fixed period to perform a specialized task, and delay the work of others by their absence.

Effective management of the ACES transition will require a keen understanding of the unique challenges posed by a technology project.

A common mistake is to approach a project simply as another change in a constantly changing environment. This approach can lead to missed schedules, cost overruns, and failure of proven operational managers. In crafting the initial project organization, or making the incremental change to the organization, the following guidelines provide a useful perspective:

1. A first ingredient in the management infrastructure *is properly qualified personnel, in a rational project organization*. The following organizational paradigm has worked well in constructing a project organization, and adapting it to changing conditions which occur throughout the life of any technology project:



Within this organizational paradigm, most technology projects involve the following major players:

- ✓ *Steering Committee* - The steering committee has key oversight responsibility and ultimate authority over the project. Though independent of the project in the sense that they do not perform day-to-day tasks on the project, it is their responsibility to ensure project success by providing referent and direct authority for the project. The committee should be comprised of senior level individuals in positions to make decisions and implement related policy, budget, staffing or other project concerns. The committee should be chaired with senior management from the part of the organization that will have the greatest impact as a result of automation. Steering committee members for the ACES Transition Plan should include senior representatives from the Secretary's Office, the

Economic Services Division, and the Department of Information Systems, at a minimum.

- ✓ *Champions* - The champions are individuals or groups (potentially other agencies, departments or even private sector resources) that support the technology initiative. These individuals are most useful in providing external support to the project for the steering committee and publicity across a wide spectrum of interested parties. Though not formally convened, the champions represent a significant resource to the project in ensuring adequate sponsorship.
- ✓ *Project Director* - Each project should have a single point of responsibility for the day-to-day operations of the project. This individual should have competencies in technology project management, personnel management, familiarity with the technology being implemented and a thorough understanding of the project and project team. Generally, past success in projects of a similar nature is the best predictor of future managerial success. In the case of ACES transition, experience in bringing new technologies to state agencies would be particularly important.
- ✓ *Independent Oversight and Internal Quality Assurance* - Though scrutiny by the steering committee and project manager is critical, oversight by a completely neutral third party with expertise in the management and technical approaches can help assure project success. This role can often detect both management and technical issues missed by others who are too engrossed with daily activities to see the larger picture.

The focus of the neutral third party should be on quantitative measurements of performance and success, rather than on qualitative assessment of suitability. For example, an independent project monitor is able to evaluate and report on the work required and consistency of a specific screen design, as well as the degree to which the design does or does not address specific documented requirements. In contrast, internal quality assurance is better suited to make qualitative judgment about how the look-and-feel of a screen will be accepted by the case workers in the CSOs, or whether the navigation among screens is as efficient as it could be in supporting real work patterns.

- ✓ *Vendors* - As with all new technology it is generally in an enterprise's best interest to obtain the assistance of qualified external resources. These resources can be the best way to rapidly get the expertise needed to implement new technologies. These resources can:
 - provide expertise which doesn't exist internally
 - provide expertise which does exist internally, but can't be made sufficiently available to the project
 - provide independent and objective thought

- provide an alternative to permanently increasing internal agency staff count
- ✓ *State Technical Representation* - It will be critical to have state technical staff involved throughout the transition of ACES. Though vendors can be a valuable tool to reduce risk and bring new knowledge into an enterprise, it will be the state's responsibility in the long term to manage and grow the architecture. As such, state technical personnel should work in conjunction with vendors wherever feasible to gather as much knowledge about the technology being implemented as possible.

Significant new knowledge acquisition will be needed by state technical staff if they are to effectively interface and coordinate vendor development and implementation activities utilizing modern tools, techniques, and technologies. There are already some resources within DSHS who have developed some of the necessary knowledge and expertise. These individuals should be identified and positioned to facilitate propagation of their knowledge and expertise.

- ✓ *State Program Representation* - As with almost any technology project, success or failure rarely hinges on an esoteric technical consideration but rather on how the project is accepted by those it is meant to benefit. This means end-users need to be involved in the transition effort not only for the critical business knowledge they possess but also as ultimate arbiters of what is useful. This type of "buy-in" to the transition initiative is best accomplished by including state program personnel early and often in the project.
2. The second ingredient is *unambiguous roles and clear boundaries of responsibility*, within which each player has fair latitude to discharge his/her responsibility in the manner they think best serves the project sponsors.
 3. The third ingredient is *clear lines of communication*. Both formal and informal relationships need to be fostered, and the communications should be reflective of these needs. For projects involving a significant number of players a formal communications plan should be put in place determining how and when each party should be "contacted." The communications infrastructure should also include ways for people to raise issues they believe are worthy of management consideration, as well as escalation procedures for particularly high risk issues. Of particular importance are lines of communication between technical and program staff, and between CSOs and central staff.
 4. The fourth ingredient is *measurement and adaptation mechanisms*. The ability to manage a project depends upon management's ability to objectively measure performance, contrast actual performance against needed accomplishments at different intervals through the project, and quickly make any adjustments which appear to be warranted.

We distinguish *performance* from *progress* here. When measuring progress, people tend to have a retrospective approach... how far away from the starting line are we? When measuring performance, people tend to have a prospective approach... how far from the finishing line are we? The latter approach generally is less concerned with the amount of time spent on a task than the amount of time which remains to complete the task (and whether the schedule provides the needed time). The latter approach generally is less concerned with the amount of budget spent on the project than the amount of budget which is needed to complete the project (and whether the remaining budget provides the needed funding).

TRANSITION CHALLENGES

Any project which depends on the performance of such a diverse group of individuals as the ACES project has inherent risks. Moreover, departures from the “old tried-and-true” ways of the past may cause people to support change in their conversations but not in their actions. Effective management of any technology project requires a clear understanding of risk. Management of the ACES transition will require particularly astute management of risk, given the problems of past welfare system projects. The following risks are likely to be particularly relevant to the ACES transition:

- ✓ *Avoid the “grand design” approach* - The overall architecture should be developed with a plan and clear guidelines in mind. However, it should not have a single pre-conceived design which is followed regardless of technological advancement or political and cultural realities. Modern architectures grow “organically”; that is they take advantage of new technical developments as they grow.

The state should avoid a “big bang” architecture where all components are purchased, installed and turned on in a single project. By piloting pieces of the architecture, rolling it out over time, and evolving it in a rational manner as more advanced technology becomes useful, the state will reduce costs, avoid technological obsolescence, and achieve a better fit of technology to business needs..

- ✓ *“One-shot” investment in new technologies/techniques* - The new technologies and techniques which are needed for a rapid response to policy changes require the state to accept ongoing change as a way of life. For example, the state needs to treat PC’s as expenses, since they will likely be upgraded or replaced every few years to exploit the performance and cost advantages gained by maturing technologies. The state should no longer think in terms of a one-time outlay for a major system which is connected via hard-coded interfaces. Instead, the investment should be approached in terms of modular “plug-and-play” components which are continuously updated and utilized in new ways.

A funding philosophy is needed which is more reflective of incremental development and evolutionary information systems. The changes outlined in the ACES transition plan will require five to eight years to implement. It is critical that funding decisions be made and implemented with a longer term strategic perspective than merely the “next biennium.”

- ✓ *Failure to address the need for concurrent business change* - Technology is only an enabler for change. Though some savings can result from automating existing processes (e.g. eliminating redundant manual data capture) most significant savings result from re-inventing the way business is performed. Removing redundant or unnecessary manual procedures or practices, or revising policy to leverage the efficiencies achievable through modern technology, is considerably more effective than simply grafting modern technology onto cumbersome or outdated business practices.
- ✓ *Avoidance of shared responsibility* - The tendency to place all responsibility for development upon a vendor and then hold the vendor tightly to a contract does not work. Risk is better managed by entering into partnership with a vendor, sharing responsibility for delivery, with clearly defined and well thought-out boundaries of responsibility. Permitting the vendor latitude in performing their work, and teaming with the vendor so that decisions are mutual rather than one-sided, leads to more cooperative vendors and lowered risk. Coupled with added incentive for early delivery, this is a much more effective means of assuring on time/budget delivery of high quality projects.
- ✓ *Lack of Implementation Guidelines* - The transition to a client/server type processing architecture, with both distributed and centralized data, places significant new requirements upon the state. Clear but flexible system implementation guidelines must be defined. They should motivate developers, users, and managers to follow them, not simply because the central authority “says so”, but because of the benefits of doing so.
- ✓ *Failure to use the right people* - The skills required to implement and manage these new technical environments are very different than the skills generally possessed by people involved with traditional legacy systems. Using staff with experience in specific technologies, possibly coupled with vendor “mentors,” can significantly improve the probability of success.
- ✓ *Weak or passive leadership* - The sponsors and steering committee members for a project are critical throughout the life of a project. Too often in technology projects senior management tends to relax their involvement or inquisitiveness when a project is progressing satisfactorily. This often leads to projects failing when they were thought to be within reach of success. Project sponsors should insist on senior management involvement (and senior management should insist on being involved).
- ✓ *Failure to prepare stakeholders* - There is one sure way to guarantee the failure of a technology project... don’t prepare the people who are involved in the project for the outcome. Investment in technology is wasted unless it is

accompanied by a significant investment in educating technical, end-user, and management staff alike in the development, use and support of the technology. Without a willingness to make this investment in people the investment in technology will be wasted.

- ✓ *Failure to anticipate impact on end-users* - Technology projects are designed to make business activities easier for end users. However, “techies” are often not the best judges of what is easier. The impacts of technology on end-users must be anticipated and prepared for. The best (and only) way to do this is to significantly involve those who will live with the outcome of the project... the end-users.