A Proposal to Provide Electronic Access to the State Business Licensing Process

This is Part III of the
Report to the Governor
Pursuant to Executive Order 93-9

TABLE OF CONTENTS

PROJECT SCOPE

Background and Context

Executive Order 93-9 directed the Commissioner of Trade and Economic Development to conduct a feasibility study of "one-stop shopping" for business related licenses and permits of State of Minnesota agencies. The Commissioner was charged with reporting his findings to the Governor by January 15, 1995.

That Executive Order was explicit as to the definition of "one-stop shopping": a single agency or sub-agency in state government (though perhaps with more than one office location) which has the authority, personnel, expertise, procedures and systems to:

- Assist and advise the "business public" with the substance and procedures of individual regulations and the steps to compliance;
- Provide to and accept from business applicants the necessary forms and documents for regulatory compliance;
- Process these forms and documents in accordance with statutes and rules; and
- Directly issue licenses and permits as agent for the applicable agency.

That definition is a substantial expansion on the present permit and licensing assistance programs presently in place through operation of the Business Licensing Act (Minn. Stat. § 116J.69-86) and the Environmental Permit Coordination Act (Minn. Stat. § 116C.24-32) which provide for centralized information, facilitation of contacts with agencies, consolidated hearings, but do not provide for a central point of application.

The study concluded that the physical co-location of licensing and permitting functions in a single agency was not feasible for a number of legal, policy and practical reasons noted in the study report. It further concluded, however, that the virtual co-location of these functions through an electronically accessible information and application system was feasible. The study presented a simulation of what such a system might contain and how it could work.

This project seeks to plan for, design and implement such an electronically accessible licensing and permitting system.

Goals

This project will design, implement and maintain:

A. a user-friendly electronically accessible catalog of licenses and permits, their requirements and related information;

B. a user-friendly electronic application for all state required licenses and permits.

In both cases the user will interface with a set of computer screens containing the information desired (from the catalog) or prompting the information needed (for the electronic application) together with on-line help in using the system.

Objectives

For the electronically accessible catalog, using data already gathered or to be gathered outside of this project, to design and implement storage technology and retrieval technology to allow a user from a remote site to retrieve information on the following:

- Whether a license is required for a "key word" described business or activity;
- The specific requirements, fees, schedules and other important information for licenses identified above;
- The full text of those sections of Minnesota Statutes and Minnesota Rules dealing with the license identified above and its requirements;
- Text of basic additional information on related licenses of other units of government, tax information, non-license regulatory requirements, compliance and assistance issues, where to go for further information and assistance.

For the electronic application, using information to be developed or collected as part of this project and included in the project budget, to design and prototype a system to allow for:

- Remote retrieval of hard-copy printouts of application forms for state required licenses and permits when the user prefers to make a hard-copy application for a license or permit;
- Completion of an analog electronic application for each license and permit;
- On-line electronic submission of the application, to include an electronic signature or identification of the applicant and electronic payment of required fees;

- Issuance of an electronic receipt to the applicant;

- Storage of the electronic application in a database that allows for retrieval by the licensing agency.

Benefits

The principal benefits of this project's outcomes are reduced information and transaction costs for applicants for state required business licenses and permits.

Neither information about the requirements of licenses and permits nor the procedures for application are costless. For a business to obtain information and make applications itself requires expenditures of time, effort, money, and lost opportunity. For that business to use paid outside assistance is a direct cash cost to the business, whether it utilizes retained, firm-specific assistance (as in hiring a lawyer) or utilizes multi-firm or industry-specific assistance (as in using the assistance of a membership trade association). It is a measure of how heavily those first costs of time, effort and opportunity fall on smaller businesses that, in response to a DTED survey in 1993, twenty-five percent of responding businesses indicated that they used paid outside assistance (professional advisors or trade associations).

Because possession of the appropriate license or permit is a condition precedent to doing business or performing a particular business related activity, the individual business has no choice but to bear these costs -- both as initial sunk costs and as on-going transaction costs.

There are also tremendous information asymmetries in license and permit requirements and applications. The amount of information needed and effort required for a second, related license is not double that required for the first license, but may be exponentially greater. This means that an applicant with its own or retained expert staff, able to access statutes and rules, knowledgeable about administrative procedure and agency policies, will have easier and cheaper access to information and applications than an applicant lacking those resources.

This project's outcomes will reduce both asymmetry and cost by providing a single point of access (the computer) for standardized, general information (e.g., what is required, where to get it, how much it costs, what the schedules of application and approval are) and otherwise less accessible more expensive information (e.g., statutes and rules; issues of application, compliance and enforcement specific to the regulated activity; relationship to other regulatory, non-license requirements). In addition, the outcomes will also provide for the retrieval of information and making of applications at the business' location and at its convenience and schedule.

Constraints of Risk

- The simulation developed in the Executive Order 93-9 feasibility study provides for conceptualization of an electronic catalog and application. There is no certainty that the system envisioned there is technologically feasible. As a result both planning and design efforts will have to be conducted at the same time to meet the catalog introduction date of December 31, 1996. Proposed features may have to be dropped for technical feasibility reasons.

- Project design is beyond the capabilities of department staff who will have to rely on outside consultants.

- Conduct of the project is dependent entirely on new legislative funding. There is no ongoing effort in the department on which this project can be piggy-backed.

- There are some licenses and permits which will not (or not easily) lend themselves to electronic application because they have long approval timelines, are very complex, involve the submission of large amounts of data, require third party participation (e.g., hearings) or involve very substantial exercise of agency discretion. While these are not issues for the catalog, there is a danger that the electronic application may never be useful for making application for these kinds of licenses and permits (e.g., environmental permits).

- Individual departments may object to the project as inappropriate and may exempt themselves from its coverage. Alternately, agencies may just refuse to participate.

- There is presently no history on the cost of maintaining, enhancing, and updating the system proposed here. Such data will affect the State's decision as to whether to own and maintain the system or have it owned and maintained by an outside party (the Department of Revenue's electronic filing system, for example, uses software owned and updated by a private firm as a commercial product). Our 5-year life cycle cost analysis does include our best current judgement of the staff and software costs of maintaining and enhancing the One-stop Business Licensing System.

- Decisions about use of the Internet or other such infrastructure will be affected by the announced intention (July, 1994) of the U.S. Copyright Office to rewrite the copyright laws to take into account the distribution of information over the national information infrastructure.

- There is emerging case law on the liability of "electronic publishers" and data base systems for incorrect information and improper handling of data. The ability of the state to immunize or indemnify itself against possible liability is unknown at this time.

- Federal and state banking laws and the Uniform Commercial Code will apply to the type of electronic funds transfer used for the project. The impact of these laws on system design and operation is unknown at this time.

- The degree to which the system should be congruent with the standards developed by the federal government for electronic data interchange (FIPS PUB 161-1, April, 1993) is unknown at this time.

Relationship to DTED Mission and Goals

Minn. Stat. 116J.011 states the mission of the department:

> The mission of the department of trade and economic development is to employ all of the available state government resources to facilitate an economic environment that produces net new job growth in excess of the national average and to increase non-resident and resident tourism revenues.

As part of its effort to implement that mission, the department has identified a goal to facilitate the start-up and growth of business in Minnesota, especially small business, by providing information and technical assistance. In practice, the department has a number of such information and assistance efforts regularly in place. These serve to:

- provide, through the Information, Analysis and Evaluation Office, information on the structure of Minnesota's economy, its demographics, markets and industries, and other information useful in business planning and competitive analysis;

- provide, through the Small Business Assistance Office, publications and workshops on topics of interest to small businesses;

- provide, through the network of twenty-one Small Business Development Centers, one-to-one counsel and assistance on business, financial and market planning for small firms.

Most significantly related to the proposed project is the charge to the department's Bureau of Business Licenses in Minn. Stat. 116J.73 "to provide a centralized state government office from which business license applicants may obtain comprehensive license information and assistance." To that end the Bureau publishes a directory of licenses and permits, provides for pre-application conferences, master applications and consolidated hearings under Minn. Stat. 116J.79 to 116J.84. The Bureau also administers a similar program directed specifically to environmental permits and licenses under the Minnesota Environmental Coordination Procedures Act (Minn. Stat. 116C.22 et seq.).

Relationship to Other Projects

The study conducted under Executive Order 93-9 was one of three studies conducted in 1993-94 on efforts to ease regulatory burdens. Chapter 369, Sec. 31, Laws of Minnesota 1993, directed the Department of Jobs and Training (now the Department of Economic Security) to study the feasibility of establishing a uniform business identifier process for all firms doing business with, or within, the State of Minnesota. The Department of Economic Security indicates that it will report its findings and recommendations to the 1995 legislature. Chapter 559, Laws of Minnesota 1994, directed the Department of Administration to develop and implement a system for electronic access to state agencies to secure ". . .state permits or licenses that can be issued immediately upon payment of a fee. . ." That legislation further directed the Department of Administration to study, and report to the legislature by January 1, 1995, on the best way ". . .to increase conveniently accessible and affordable electronic services to citizens, including electronic licensing and permitting. . ."

As of this writing the Department of Economic Security is unclear as to whether its recommendations will focus on easing access to business registrations or on easing the exchange of data among state departments on already registered businesses. As a result the degree of relationship between the project proposed here and any forthcoming initiatives of the Department of Employment Security cannot be determined at this time.

The Department of Administration has indicated that it will seek to comply with Chapter 559 through an investigation of the use of information kiosks at locations throughout the state. Issues of the modality of delivery of license and permit information (e.g., using kiosks, libraries, out-state offices of state government, chambers of commerce) are beyond the scope of the study commissioned by the Executive Order. The study and the proposed project express no opinion on such modality except for illustrative purposes. The project is intended to yield a system which can be used in any of the above modes.

Cost Analysis

This section describes the cost of the One-stop Business Licensing Project using the Information System Life Cycle Methodology recommended by the Information Policy Office. The methodology has seven categories of cost.They are: Hardware, Software, Facilities, Services, Supplies, Staff and Users. A budget using traditional Department of Finance budget categories was first prepared and then converted and documented into the IPO budget categories.

Life Cycle Cost Summary

Figure 1 on the following page provides a summary of life cycle costs broken out by capital and operating costs. Resource requirements, cost assumptions and cost components for each category (hardware, software etc.) of expenditure by year are provided.

One Stop Business Licensing

Figure 1. Life Cycle Cost Summary

	Capital Costs (1000's Of Dollars)						Operating Costs (1000's Of Dollars)						Total Costs (1000's Of Dollars)					
	FY 96	FY 97	FY 98	FY 99	FY 00	Total	FY 96	FY 97	FY 98	FY 99	FY 00	Total	FY 96	FY 97	FY 98	FY 99	FY 00	Total
Hardware	$300.0	$105.0	$52.5	$52.5	$52.5	$562.5	$6.0	$12.0	$12.0	$12.0	$12.0	$54.0	$306.0	$117.0	$64.5	$64.5	$64.5	$616.5
Software	$30.0	$30.0	$15.0	$15.0	$15.0	$105.0	$7.5	$7.5	$7.5	$7.5	$7.5	$37.5	$37.5	$37.5	$22.5	$22.5	$22.5	$142.5
Facilities	$100.0	$10.0	$5.0	$5.0	$5.0	$125.0	$10.0	$10.0	$10.0	$10.0	$10.0	$50.0	$110.0	$20.0	$15.0	$15.0	$15.0	$175.0
Services	$413.4	$551.2	$185.2	$185.2	$100.0	$1,435.0	$50.0	$285.5	$315.8	$285.8	$285.8	$1,222.9	$463.4	$836.7	$501.0	$471.0	$385.8	$2,657.9
Supplies	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$10.0	$10.0	$10.0	$10.0	$10.0	$50.0	$10.0	$10.0	$10.0	$10.0	$10.0	$50.0
Staff	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$157.5	$255.0	$255.0	$255.0	$255.0	$1,177.5	$157.5	$255.0	$255.0	$255.0	$255.0	$1,177.5
Users	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total	$843.4	$696.2	$257.7	$257.7	$172.5	$2,227.5	$241.0	$580.0	$610.3	$580.3	$580.3	$2,591.9	$1,084.4	$1,276.2	$868.0	$838.0	$752.8	$4,819.4

Hardware:

Year 1 (FY 96):

The planning and design phase will include recommendations on the hardware needed. The budget includes $150,000 for a Server that the application will run on. This may be a single server which multiple people can access at one time or may be a server and several PC workstations in which the main server off loads the application when multiple people are accessing the system at the same time. This problem (multiple people accessing the application at once) has a variety of technical solutions that the $150,000 will cover. Other costs that this will cover include large amounts of disk drive space which will be required to store images and information on the 1,200 business forms maintained in the system. Other budgeted items include:

Tape or CD ROM Back Up System

A tape or CD ROM back up system will be needed to back up the system on a regular basis. This cost is anticipated to be $25,000.

A UPS System

An Uninterrupted Power Supply (UPS) will be needed for security; in the event of power outages. The cost for this unit is anticipated to be $5,000.

Staff PC's

Eight PC's have been budgeted for staff and consultants at a cost of $40,000.

Printers

One laser color printer and one standard laser printer will be needed to print images and forms too during testing at an estimated cost of $15,000. The standard laser printer will support the additional staff and consultant brought on as part of the project.

Telecommunications Hardware

A total of $25,000 has been budgeted for special telecommunications hardware which may include a dedicated communications server and multimodem board that routes incoming calls to an open modem and phone line.

Installation and Wiring

Installation and wiring costs to network everything together are estimated at $15,000.

Miscellaneous Computer Equipment

A total of $25,000 has been budgeted for unanticipated computer equipment needs.

Hardware Maintenance

A total of $6,000 has been budgeted for hardware maintenance for the server, peripheral equipment and PCs. This assumes that equipment will be installed on January 1, 1997 and that only six months maintenance will be required during FY 96.

Year 2 (FY 97)

During the second year of operations $100,000 has been budgeted for additions to the server including additional disk drive space and advanced communications equipment. Installation costs the second year are budgeted at $5,000. Hardware maintenance costs are budgeted at $12,000 due to additional equipment and a full year of coverage.

Year 3-5 (FY 98, FY 99 and FY 2000)

After FY 98, $50,000 has been budgeted for each year for equipment upgrades. These numbers will be impacted by the technical planning and design study that will occur during FY 96-97. Annual installation costs are budgeted at $2,500. Annual hardware maintenance costs are anticipated to remain at $12,000.

Software:

Year 1 (FY 96)

A total of $25,000 was budgeted for software that the application will be developed in. The specific software to be used will be determined after the consultant has provided a recommendation. The budgeted amount takes into account that multiple development copies may be purchased that will allow more than one programmer to develop the application. The budget figure also includes $5,000 for an operating system software and anti-virus software etc. for the server and PCs.

Software technical maintenance contracts are assumed to cost $7,500 per year.

Year 2 (FY 97)

This budget assumes during the second year the need to buy additional software or software upgrades ($15,000) and provides for a contingency of $15,000 in which software would be loaded on remote PCs that access the application. This might prove necessary if unaided access to the windows application proves unsatisfactory in performance and if, alternatively, local access points were established at libraries, kiosks, etc. Approximately 100 sites have

been budgeted for in this instance at $150 per site for software. This budgeted amount is also designed to provide funding in the event that a client/server software were used that required that user licenses be purchased for each PC accessing the application from a remote site . Software technical maintenance contract are assumed to cost $7,500 per year.

Years 3-5 (FY 98, FY 99 and FY 2000)

After the 2nd year $15,000 has been budgeted for software updates. An additional $7,500 has also been budgeted for technical maintenance contracts on the software.

Facilities:

The facilities category has rent costs and remodeling and furniture cost for the six staff positions to be added as a result of this project.

Year 1 (FY 96)

Rent has been calculated on the assumption of adding six permanent staff and two temporary consultants. Assumes 100 sq. ft. per staff cubicle and 250 sq. ft. for server and associated PCs used for downloading the application while interfacing with a client. The cost is equal to 850 sq. ft x $11.50/sq. ft. or $9,775.

For remodeling, cubicle partition additions and furniture $15,000 has been budgeted per staff person (6) as well as one work space for the consultants. An additional $10,000 has been budgeted for furniture for computer server room. In FY 97 10,000 has been budgeted for miscellaneous furniture and remodeling needs and $5,000 each year there after.

Year 2 (FY 97)

Rent costs remain $10,000. A total of $10,000 has been budgeted for miscellaneous furniture and remodeling needs and $5,000 each year there after.

Year 3 (FY 98)

Rent costs remain $10,000. A total of $5,000 has been budgeted for miscellaneous furniture and remodeling needs.

Year 4 (FY 99)

Rent costs remain $10,000. A total of $5,000 has been budgeted for miscellaneous furniture and remodeling needs.

Year 5 (FY 20)

Rent costs remain $10,000. A total of $5,000 has been budgeted for miscellaneous furniture and remodeling needs.

Services

Services include project consulting services, contract programming, advertising, printing, communications, other purchased services, and travel and fees for training.

Consulting Contract

The project consulting contract will consist of two parts. The first part will focus on the hardware, software and technology delivery system of the computer application (the electronic catalog of business license information and the interactive electronic license application.) This planning and design work will require the equivalent of one staff person year round for the first two years of the project. (52 weeks x 40 hrs. x $100 hr.=$208,000)

The second part of the planning and design contract will develop procedures and resolve the logistical problems involving the 40 agencies that currently process 1,200 business forms covering 400 different licenses. Input from the business community in developing the One-stop Business Licensing System will also be part of the planning and design process. This is also anticipated to require 1 people for a full year. This person(s) will set up Joint Application Development (JAD) meetings with each of 40 state agencies, as well as focus groups with business users of the system. The cost for this position is anticipated to be the same as the first (52 weeks x 40 hrs. x $100 hr.= $208,000). Since the contractor will not be hired until September of 1995 the cost in the first fiscal year will be only 75% of the total for both positions. After the application is completed $50,000 per year is budgeted for follow up work with the consultant to assist with problems that will inevitably arise.

Contract Programming

It is anticipated that a contract programmer will work full time for a 9 months in FY 96 (40 hrs. x 39 weeks x $65 hr.) and full time for FY 97 - FY 98 (40 hrs. x 52 weeks x 65 hr.). This will complete the initial work on both modules (Catalog of Business Licenses and Interactive Business License Application) of the One-stop Business Licensing project. It is anticipated that a maintenance contract representing 4 months of work (40 hrs. x 17.3 weeks x $65 hr.) will continue to be needed during FY 99 and FY 2000. Contract programming work will begin after the consultant has specified the hardware and software that will be used on the project.

Purchased Services

$10,000 is budgeted for unanticipated miscellaneous services that will be needed.

Communications

There are four components to the Communications budget. They are:

1. A 1-800 phone number for incoming callers using the system. We assume 25 users per day and that the average call lasts 45 minutes.(25 users x 260 days x 45 minutes x .146 cents per minute = $42,705.) Alternatively, DTED will evaluate delivery of this service over Internet and from select locations using Mnet. Our goal is to provide easy access to the service with technology that small and medium size business have readily available. This technology evaluation will occur during the planning and design phase.

2. A second 1-800 phone number for those needing technical support with the application. We assume one staff person supporting the "Help Line" 8 hours a day year round. (8 hours a day x 260 days x .146 cents per minute = $18,220).

3. Eight phone lines for new staff and consultants. Installation cost will be $960 (8 x $120) and annual monthly operating costs will be $30 per month or $2,880 per year.

4. Five phone lines that are dedicated to handling multiple users of the system at the same time. The annual cost for these lines are estimated at $600 (5 x $120) for installation and an annual operating cost of $30 per month or $750 per year. Use of existing lines with switch box technology will be explored during the Planning and Design phase.

5. During the first year mailing costs are anticipated to be about 20,000 pieces at 30 cents apiece or $6,000. During the second year when communications with the business community about the application become critical we estimate sending 250,000 pieces of mail out to businesses at the bulk rate of 20 cents apiece. This equals $50,000 per year.

The 1-800 numbers will not become operational until January 1, 1997. The eight phone lines for staff and consultant are part of the budget in both years. The five incoming phone lines to the One-stop Business Licensing application will not begin operation until January 1, 1997.

Marketing:

Funds will be used to market both modules of the One-stop Business Licensing service to Minnesota's 140,000 business establishments. It will pay for production costs and media for radio spots and selective adds in business magazines and newspapers. The production costs include brochure/add design, writing, layout, and graphics. It will also be demonstrated at trade fairs. There are no marketing costs budgeted for the FY 96 since this is the developmental phase of the project and the actual start date for Module I (the

Catalog of Business Licenses) is not until December 1996. The marketing campaign will focus on the first two years that the project is operational in FY 97 and FY 98. In these years $100,000 has been budgeted. Continued marketing of the service, though at a lower level ($70,000) is anticipated in FY 99 and FY 2000.

Printing

Brochures will be printed for the state's 140,000 businesses as part of the system's marketing effort. Also all new firms which incorporate would receive a brochure. In 1992 there were 12,000 new businesses formed in Minnesota. We will also have to print a large number of instruction manuals for end users which will have a wide distribution. Normal printing costs for staff have been budgeted. Printing costs during the developmental period FY 96 are anticipated to be $10,000 and then rise to $70,000 per year for FY97-98.

Travel

Assumes 10 in-state trips at $500 apiece (focus groups, libraries, etc.) and two out-of-state trips at $2,000 apiece.

Fees and other Fixed Services

Assumes $3,000 in Attorney General fees, $6,000 in training and $3,000 in registration fees.

The Service costs for the project itemized by year are:

Year 1 (FY 96)

Project Consulting Contract (Planning and Design)	$312,000
Contract Programming	101,400
Other Purchased Services	10,000
Communications	9,000
Advertising	0
Printing	10,000
Travel	9,000
Fees	12,000
	$463,000

Year 2 (FY 97)

Project Consulting Contract (Planning and Design)	$416,000
Contract Programming	135,200
Other Purchased Services	10,000
Communications	84,500
Advertising	100,000
Printing	70,000
Travel	9,000
Fees	12,000
	$836,700

Year 3 (FY 98)

Project Consulting Contract (Design Modification)	$50,000
Contract Programming	135,200
Other Purchased Services	10,000
Communications	114,800
Advertising	100,000
Printing	70,000
Travel	9,000
Fees	12,000
	$501,000

Year 4 (FY 99)

Project Consulting Contract (Design Modification)	$50,000
Contract Programming	50,000
Other Purchased Services	10,000
Communications	114,800
Advertising	70,000
Printing	70,000
Travel	9,000
Fees	12,000
	$345,800

Year 5 (FY 20)

Project Consulting Contract (Design Modification)	$50,000
Contract Programming	50,000
Other Purchased Services	10,000
Communications	114,800
Advertising	70,000
Printing	70,000
Travel	9,000
Fees	12,000
	$385,800

Supplies:

Includes copy costs, tape or CD ROM disks for copy back up purposes, diskettes, computer paper, the cost to produce visual slides and general supplies for six staff and two consultants.

Years 1-5 (FY 96-FY 2000)

A total of $ 10,000 has been budgeted for supplies for each year.

Staff:

Staff costs are based on estimates of the time required by managerial and technical staff for systems development, operations and maintenance . A description of job duties, starting date and annual salary requirements follows:

Project Manager:

Manages the project day-to-day. Orders hardware and software. Is responsible for organizing inter-agency contacts, committees, user groups of businesses, writing RFPs for contracts, selecting contractors, and overseeing contract administration. This position will help implement inter-agency polices on accessing, updating and transferring business license information. The position is responsible for supervising a programmer, database administrator, help line staff and two data entry operators. The annual estimated cost for wages and benefits for the project manager is $60,000. The project manager begins work on July 1, 1995.

Programmer:

Works with the contract programmer so that agency can take over application after it is developed. Makes programming adjustments to the data base. Is the technical in-house expert for the application. Is responsible for handling problems related to image transfer, file storage, file transfer to other agencies, and security. Responsible for adding features, such as help screens, etc. The annual estimated cost for wages and benefits for the programmer is $45,000. The programmer begins work in March of 1996.

Database Administrator:

Responsible for day-to-day administration of the data base. Periodically updates forms and images. Transfers electronic files to other state agencies. Assists other state agencies trying to access the system or down load electronic applications for a business permit or license. This position is also responsible for loading electronic text of statutes, rules and other information into the "catalog" on licenses and modifying help text. The annual estimated cost for wages and benefits for the database administrator is $40,000. The database administrator will begin work in October 1995 supervising the collection of forms and

information that will become part of the first phase of the One-stop Business License application.

Help Line Staff:

Responsible for staffing a help line to support the application. Businesses having trouble can call in during regular business hours for assistance. This person will also help develop instructions and informational brochures on the system. The annual estimated cost for wages and benefits for the help desk staff person is $40,000.This person will not begin work until July 1, 1996.

Data Entry Operator:

Two data entry operators responsible for soliciting and collecting 1,200 business forms used by state agencies. Entering and maintaining text on the states 400 business permits that can not be electronically loaded. Scan and load forms into the system. Verify accuracy of information entered into the system. The annual estimated cost for wages and benefits for the two data entry operators is $70,000. The data entry operators will begin work in October 1995.

Year 1 (FY 96):

Staff time for Year 1 includes the Project Manager 100%, Programmer 33%, Database Administrator 75%, Help Desk staff person 0%, Data Entry Operators 75%.

Year 2 (FY 97):

Staff time for Year 2 includes the Project Manager 100%, Programmer 100%, Database Administrator 100%, Help Desk staff person 100%, Data Entry Operators 100%.

Year 3-5 (FY 98, FY 99 and FY 2000):
Same as Year 2.

Users (Other State Agencies)

It was not possible at this time to calculate user conversion costs. Theoretically, user conversion costs would be the time it would take staff from each state agency which has responsibility for a permit or license to provide DTED with the information needed on a regular basis for this computer application plus learn the new computer application's efficient use.

For the creation of the electronic catalog of business licenses, the new incremental costs to other state agencies should be modest because:

- the databases, hardware and software will be at DTED;

- much of the basic information on licenses for inclusion in the catalog is already provided (yearly) to DTED in hard copy form by other agencies.

- DTED itself will do most of the development and composition of new, specialized information for inclusion in the database.

There will be incremental costs (initially personnel costs) for agencies to meet with DTED staff and outside consultants and vendors on the design of the electronic application and the needs to make the total system integrate with current systems and efforts of the departments. Those costs will increase as agencies are asked, as anticipated, for assistance with design of electronic "forms."

Later costs to departments, of hardware and connections are expected but not estimated at this time. Instead, a determination of those costs will be an element of the proposed project for development of a cost figure to be used in preparation of the FY 98-99 budget.

Analysis of Benefits

The principal benefits of this project's outcomes are reduced information and transaction costs for applicants for state required business licenses and permits.

Neither information about the requirements of licenses and permits, nor the procedures for application are costless. For a business to obtain information and make applications itself, requires expenditures of time, effort, money, and lost opportunity. For that business to use paid outside assistance is a direct cash cost to the business, whether it utilizes retained, firm-specific assistance (as in hiring a lawyer) or utilizes multi-firm or industry-specific assistance (as in using the assistance of a membership trade association). It is a measure of how heavily those first costs of time, effort and opportunity fall on smaller businesses that, in response to a DTED survey in 1993, twenty-five percent of responding businesses indicated that they used paid outside assistance (professional advisors or trade associations).

Because possession of the appropriate license or permit is a condition precedent to doing business or performing a particular business related activity, the individual business has no choice but to bear these costs -- both as initial sunk costs and as on-going transaction costs.

There are also tremendous information asymmetries in license and permit requirements and applications. The amount of information needed and effort required for a second, related license is not double that required for the first license, but may be exponentially greater. This means that an applicant with its own or retained expert staff, able to access statutes and rules, knowledgeable about administrative procedure and agency policies, will have easier and cheaper access to information and applications than an applicant lacking those resources.

This project's outcomes will reduce both asymmetry and cost by providing a single point of access (the computer) for standardized, general information (e.g., what is required, where to get it, how much it costs, what the schedules of application and approval are) and otherwise less accessible more expensive information (e.g., statutes and rules; issues of application, compliance and enforcement specific to the regulated activity, relationship to other regulatory, non-license requirements). In addition, the outcomes will also provide for the retrieval of information and making of applications at the business' location and at its convenience and schedule.

Analysis of Risk

- The simulation developed in the Executive Order 93-9 feasibility study provides for conceptualization of an electronic catalog and application. There is no certainty that the system envisioned there is technologically feasible. As a result both planning and design efforts will have to be conducted at the same time to meet the catalog introduction date of December 31, 1997. Proposed features may have to be dropped for technical feasibility reasons.

- Project design is beyond the capabilities of department staff who will have to rely on outside consultants.

- Conduct of the project is dependent entirely on new legislative funding. There is no ongoing effort in the department on which this project can be piggy-backed.

- There are some licenses and permits which will not (or not easily) lend themselves to electronic application because they have long approval timelines, are very complex, involve the submission of large amounts of data, require third party participation (e.g., hearings) or involve very substantial exercise of agency discretion. While these are not issues for the catalog, there is a danger that the electronic application may never be useful for making application for these kinds of licenses and permits (e.g., environmental permits).

- Individual departments may object to the project as inappropriate and may exempt themselves from its coverage. Alternately, agencies may just refuse to participate.

- There is presently no data on the cost of maintaining, enhancing, and updating the system proposed here. Such data will affect the State's decision as to whether to own and maintain the system or have it owned and maintained by an outside party (the Department of Revenue's electronic filing system, for example, uses software owned and updated by a private firm as a commercial product).

- Decisions about use of the Internet or other such infrastructure will be affected by the announced intention (July, 1994) of the U.S. Copyright Office to rewrite the copyright laws to take into account the distribution of information over the national information infrastructure.

- There is emerging case law on the liability of "electronic publishers" and data base systems for incorrect information and improper handling of data. The ability of the state to immunize or indemnify itself against possible liability is unknown at this time.

- Federal and state banking laws and the Uniform Commercial Code will apply to the type of electronic funds transfer used for the project. The impact of these laws on system design and operation is unknown at this time.

- The degree to which the system should be congruent with the standards developed by the federal government for electronic data interchange (FIPS PUB 161-1, April, 1993) is unknown at this time.

Skill Requirements

Skills Needed for Project

This project requires that a new service be provided by the state to ease the regulatory burden on business. This new service provides on-line access to an electronic catalog of information on business licenses and the capability to remotely apply for business licenses.

The skills required include:

- Organizational skills in managing the logistics of transferring and updating information on 400 business licenses.

- Group process skills to conduct interagency meetings and focus groups that result in joint agreements on information that will be shared and on project design.

- Systems analysis work to address the technical challenges of the project and determine if it must be modified due to technical or resource limitations.The systems analysis work also includes selection of the most cost effective hardware and software platform to run the application and the selection of telecommunication equipment.

- Programming skills to design and code the application in a user friendly way.

- Database administration skills to maintain the application and its associated database of information, images, and license applications as well as transfer data to foreign systems as needed.

- Data entry skills to enter/ load large amounts of text based information, and 1,200 images as well as updating the information on the 400 business licenses.

- Training skills to assist end users or other state agency staff in using the application.

- Media production skills including graphic artists, writers, and layout artists and those who produce media advertising.

- Project management skills to coordinate these functions and hire the contractors and staff that will perform them.

Plan For Acquiring Skills

While some of the above skills already exist at DTED they are committed to existing departmental priorities. To deliver this new state service DTED will:

- Hire a consultant to perform the initial systems analysis work including analysis and recommendations on the technical problems, the hardware and software platform to run the application, the integration of the One-stop Licensing application with the rest of DTED's existing computer network.

- Use the same consulting firm to provide the organizational and group process skills to develop and implement a master plan to manage the logistics involved in securing the cooperation and collaboration of the other state agencies in providing current information on all state issued licenses.

- Hire department staff (for detail see the Cost Analysis Section of the Cost Benefit and Risk Analysis) such as the Project Manager, Programmer, Database Administrator and Data Entry Operators to continue the work initiated by the consultant.

- Hire a contract programmer to develop and code the initial application.

    - The programmer hired by the department will have the skills to take over the application originally developed by the contract programmer. This person should be able to make adjustments to the system and be the system guru.

    - Database administration and data entry skills will be handled through the staff the department proposes to hire as part of this proposal.

    - Training and assistance in using the application will be provided by a help desk person hired by the department to service businesses and other state agencies using One-stop Business Licensing application.

- Hire a production company with the writing and graphic arts skills to produce media spots, brochures and training materials.

    - The project management skills will be handled by a project manager hired by the department to oversee this project.

    - Travel and training fees have been budgeted to assist staff in developing the skills they need to support this project.

PROJECT PLAN

Project Outcomes

The One-stop Business Licensing Project will provide remote access to a computer application on state business licenses and permits from any PC equipped with Windows and a modem. The computerized business license information system will have two modules with the following functionality:

Catalog of Business License Information

1. Statutes, Rules and general information on 400 state required business licenses.

2. An electronic image of the application form for each of the state's 1,200 business permit and license forms. (Many licenses require more than one form.)

3. The capability to print or fax the image or business information to the remote site.

Interactive Business License Application

4. An interactive electronic license application form that can be completed by the business from their PC and filed electronically with the state. There will be 1,200 electronic license forms that can be retrieved. One for each current paper form.

5. A means to transfer/access the completed electronic form (or a printed copy) to the agency responsible for approving the license or permit for this activity.

6. A tracking mechanism that captures the name and address of the user and indicates the usage level of the modules. This information will be used for quality measurement purposes to determine customer satisfaction, improvements that can be made to the system and use levels.

Project Plan Overview

This proposed project seeks to reengineer the process of securing information about the requirements of state licenses and permits and the process for making application for those licenses and permits. The resulting benefits of that reengineering, reduced information and transaction costs to license applicants, are discussed above in the section of this proposal on "Benefits." Further reengineering of the substance of agency decision making on license applications would require changes in the statutes providing for licensing and is beyond the scope and authority of this proposal.

The project plan implements One-stop Business Licensing over a 36 month period and is contingent on funding during the next two bienniums. The Project Plan has two major phases:

Phase I. In the first stage of Phase I a planning and design study will be completed that addresses the technical challenges of the project, finalizes the hardware and software to be used, and develops interagency plans and models for maintaining and updating license information and applications and data transfer. During this phase refined project scope and technology models will be developed (updating and replacing the current models in Sections 3.2 and 4.4) as well as distribution and data models and an entity relationship diagram.

In the second stage of Phase I a working prototype of the electronic Catalog of Business Licenses will be field tested from remote locations and other state agencies.

In stage 3 staff will install information and images on 400 business licenses and 1,200 related application forms that will support the electronic Catalog of Business Licenses. Public begins access to Catalog module on December 31, 1996.

Phase II. In the first stage of Phase II a working prototype of the Interactive Business License Application will be developed and tested from remote locations. A legislative budget proposal will be prepared to secure funds for FY 98-99.

In the second stage of Phase II, programming will be completed for the 1,200 different license application forms. Public begins access to this module on December 31, 1997. State agencies begin accessing and transferring electronic license applications to their agencies. Annual Quality measures are taken measure user satisfaction and to determine improvements that should be made to the system.

Detailed Project Plan

The project plan for the One-stop Licensing Project includes the following Tasks:

1. Issue an RFI for Planning and Design Study

   An RFI will be issued to help frame the issues for development in the formal RFP to be issued in July 1995. The RFI will request statements of interest and capability of vendors early in the first quarter of 1995.

   Start: January 1995
   Complete: May 1995

2. Issue RFP for Planning and Design Study

An RFP will be prepared and issued that selects a consultant that will be used during the FY 96 and 97 period. The consultant will develop recommendations on technical issues and on logistic, process and organizational issues. These recommendations will have the effect of reengeering the process of securing information about the requirements of state licenses and permits and the process for making application for those licenses and permits. The technical recommendations will deal with the hardware and software that the application will use as well as addressing several technical issues the project faces in order to deliver the application at remote locations. Use of MNet, Internet and a 1-800 number as service delivery options will be evaluated. The logistical, process and organizational issues include securing the participation, input, cooperation and agreement from 40 state agencies that provide licenses and permits and the business community. As a part of the deliverables, additional process, data, and distribution models will be developed to supplement the existing project scope model and technology model.

Start: June 1995
Complete: July 1995

3. Hire Project Manager

The project manager for the One-stop Business License Project needs to begin work as soon as possible after July 1, 1995. This project manager will be responsible for selecting the consultant, hiring and supervising staff, purchasing hardware and software and keeping the project on schedule.

Start: June 1995
Complete: July 1995

4. Evaluate RFPs Submitted by Vendors

During this period the various proposals submitted by vendors will be evaluated.

Start: August 1995
Complete: September 1995

5. Select Consultant for Planning and Design Study

The consultant hired will be responsible for evaluating technical problems, recommending hardware and software, working with the 40 state agencies who are involved with the business licensing and permitting process and developing data, distribution and a revised technology models.

Start: September 1995
Complete: September 1995

6. Negotiate Final Details of Contract With Selected Contractor

Final details of the contract with the selected vendor will be negotiated at this time.

Start: September 1995
Complete: October 1995

7. Hire Database Administrator, and Data Entry Staff

Staff will initially be responsible for the collection, entry, updating and scanning, and loading of information on the 400 business licenses and 1,200 business license forms. This activity needs to begin in October of 1995 to keep the project on its designated schedule. During the first few months this will involve primarily the collection and prepping of data until the hardware and software platform is selected.

Start: September 1995
Complete: October 1995

8. Develop Technology Strategies and Models

The planning and design study will address technical obstacles and opportunities in implementing the One-stop Business Licensing project. The consultant will issue a report that will include recommendations on the hardware and software to be purchased and recommendations on modifying the project scope due to technical limitations of technology. Modifications to the project's scope may occur as a result of these recommendations. MNet, Internet, kiosks and 1-800 phone access will be evaluated as service delivery options. In addition, this phase will have one or more focus group sessions with businesses to make certain end user requirements are met.

Start: October 1995
Complete: January 1995

9. Develop Plan for Interagency Collaboration

The consultant will issue a report that details logistically how state agencies will collaborate with DTED staff in the development and maintenance of the One-stop Business Licensing Information System. This report will also focus on interagency logistic issues as they relate to Phase I of the project (the Catalog of Business Licenses). A project distribution model and detailed entity relationship diagram will be a deliverable.

Start: October 1995
Complete: March 1996

10. Implement Interagency Design Process

Based on the report released in activity # 9 the consultant will work with and develop interagency agreements and models that implement One-stop Business Licensing as it applies to licenses for which each agency is responsible. This report related to Phase II of the Project (the Interactive Business License Application) will involve 400 different licenses and 1,200 business license forms. Up to 40 JAD (Joint Application Development) meetings will be led by the consultant. DTED staff are anticipated to participate in this process. A revised project distribution model and detailed entity relationship diagram covering both the catalog of business licenses (Activity #9) and the interactive electronic business license application form will be a deliverable.

Start: March 1996
Complete: June 1997

11. Select Hardware and Software

Based on the consultants recommendations completed in Task 8 hardware and software will be purchased.

Start: January 1996
Complete: January 1996

12. Install New Hardware and Software

The hardware and software selected will be purchased and installed during this period.

Start: February 1996
Complete: March 1996

13. Issue RFP for Contract Programmer

Based on the consultant's software recommendation an RFP will be drawn up to write the computer program for the One-stop Business Licensing System.

Start: December 1995
Complete: January 1995

14. Select Contract Programmer

The contract programmer selected will be responsible for writing and integrating both Phase I module (Catalog of Business Licenses) and Phase II module (Interactive Business License Application). The Phase I module is to be completed by December 1996 and the Phase II module by December 1997.

Start: February 1996
Complete: March 1996

15. Complete Programming for Prototype of Phase I Module and Test Remotely

A prototype of the Phase I module (Catalog of Business Licenses) information will be completed and tested from a remote site. The purpose of testing the prototype remotely is to see how the database program performs under field conditions. Modifications to the final database program maybe made based on the testing of the remote prototype.

Start: March 1996
Complete: July 1996

16. Develop a Marketing and Training Strategy

The purpose of the marketing strategy is to make the business community aware of the One-stop Business License service and to provide them with material on how to access it. This activity will have a media/PR component as well as a brochure and user instruction piece. The help line and 1-800 number will be integrated into this effort.

Start: May 1996
Complete: August 1997

17. Implement Marketing and Training Strategy

The marketing and training strategy completed in August 1997 will be ongoing through the life of the project.

Start: September 1996
Complete: Ongoing

18. Complete Programming on the Catalog of Business Licenses

Based on earlier programming and field tests of the prototype final programming will be completed on the electronic Catalog of Business Licenses.

Start: March 1996
Complete: December 1996

19. Load Information on 400 Business Licenses

All electronic catalog information on the state's 400 business licenses and the 1,200 images of business license forms must be entered or loaded by this date.

Start: September 1996
Complete: November 1996

20. Prepare Legislative Funding Request for FY 98 and FY 99

A legislative funding request to complete Phase II and support the on going costs of maintaining and enhancing the One-stop Business License Application will be developed at this time. (Please note that the 5 year life cycle cost analysis includes our best estimates at this time of the annual maintenance and enhancement costs).This funding request involves preparing all requirements that the Information Policy Office needs to assess the project and make recommendations on it.

Start: August 1996
Complete: October 1996

21. Use of Business Licensing Catalog

Businesses and other state agencies will begin using the Phase I module (Catalog of Business Licenses) on this date.

Start: January 1997
Complete: Ongoing

22. Contract Programming/Testing on Interactive Business License Application Prototype

After the completion of the Phase I module (Catalog of Business License) the contract programmer will begin working on the prototype for the Phase II module (the Interactive Business License Application) in which the user can complete a business license application form..

Start: January 1997
Complete: May 1997

23. Install Interactive Business Application Prototype at a Remote Location

A prototype of the Phase II module (the Interactive Business License Application) will be completed and tested from a remote site. The purpose of the remote prototype will be to test the database program under field conditions to make certain it performs up to expectations. Modifications to the module maybe made based on the testing of the remote prototype.

Start: June 1997
Complete: August 1997

24. Complete Programming for Interactive Business License Application

Complete programming for 1,200 interactive business license applications. Make any modifications to the program suggested by consultant as a result of the remote testing completed in August.

Start: January 1997
Complete: December 1997

25. Conduct a Quality Survey and Measure Usage of Phase I Module

Using name and address information collected during use of the Phase I module (Catalog of Business Licenses) conduct a survey of users to determine user satisfaction and improvements that can be made to the system.

Start: March 1997
Complete: August 1997

26. Perform Maintenance and Make Enhancements to Phase I Module

Modify the information in the electronic Catalog of Business Licenses and make any desired programming enhancements to the Phase I module.

Start: January 1997
Complete: November 1997

27. Begin Using Interactive Business Application Forms

Businesses and other state agencies will begin accessing the Phase II module (Interactive Business License Applications) on this date and can begin filing for state licenses from their place of business.

Start: December 1997
Complete: January 1998

Project Oversight and Evaluation

The day-to-day operation of the project will be the responsibility of the Bureau of Business Licenses in the Business and Community Development division of DTED.
The Department's Information Management Office will be responsible for oversight of the project as well as project evaluation.

Open System Development

The One-stop Business Licensing project will be developed using open systems approach so that it may be easily ported from one hardware/operating system to another.

Resource Requirements

This project proposes a new service be provided by the state to ease the regulatory burden on business. This is a new, large scale undertaking for DTED. Since existing staff are already responsible for other critical functions, new resources will have to be provided if this new state service to be undertaken.

The financial resource requirements to implement this project are estimated at $2.4 million for the FY 96-97 biennium. The resource requirements are itemized by year by IPO budget category in the Cost Analysis portion of the Cost Benefit and Risk Analysis section of the

report. In this section we will summarize first the skills that implementation of this project will require and then the resource requirements that we propose to secure these skills.

The skills this project requires include the following:

- Organizational skills in managing the logistics of transferring and updating information on 400 business licenses

- Group process skills to conduct interagency meetings and focus groups that result in joint agreements on information that will be shared and project design between DTED and the 40 state agencies that control business licensing activities.

- Systems analysis work to address the technical challenges of the project and determine if it must be modified due to technical or resource limitations.The systems analysis work also includes selection of the most cost effective hardware and software platform to run the application from and the selection of telecommunication equipment.

- Programming skills to design and code the application in a user friendly way.

- Database administration skills to maintain the application its associated database of information, images, and license applications as well as transfer data to foreign systems as needed.

- Data entry skills to enter or load large amounts of text based information, and 1,200 images as well as updating the information on the 400 business licenses on a daily basis.

- Training skills to assist end users or other state agency staff in using and accessing the application.

- Media production skills including graphic artists, writers, and layout artists and those who produce media advertising.

- Project management skills to coordinate these functions and hire the contractors and staff that will perform them.

The resources required for this project include:

- Hiring a consultant to perform the initial systems analysis work including analysis and recommendations on the technical problems, the hardware and software platform to run the application on and the integration of the One-stop Licensing application with the rest of DTED's existing computer network.

- The same consulting firm will provide the organizational and group process skills to develop and implement a master plan to manage the logistics involved in securing the cooperation and collaboration of the other state agencies in providing current information on all state issued licenses.

- Staff hired by the department (for detail see the Cost Analysis Section of the Cost Benefit and Risk Analysis) such as the Project Manager, Programmer, Database Administrator and Data Entry Operators will take over and continue the work initiated by the consultant.

- A contract programmer will be hired to develop and code the initial application.

- An in house programmer hired by the department will have the skills to take over the application originally developed by the contract programmer. This person should be able to make many of the programming adjustments that will be necessary as the 1,200 businesses license forms on paper are modified on a periodic basis necessitating changes to the electronic forms as well. This in house programmer will over time become the system guru.

- Database administration and data entry skills will be handled through the database administrator and two data entry staff department proposes to hire as part of this proposal.

- Training and assistance in using the application will be provided by a help desk person hired by the department to service businesses and other state agencies using One-stop Business Licensing application.

- This project will require a significant budget for printing and advertising. This budget will go toward marketing the service once it is developed using radio spots, new conferences, and selective newspaper adds. Resources will also be required for direct mailing of brochures and end user training material.

- A production company hired with the printing and advertising budget will have the writing and graphic arts skills to produce media spots, brochures and training materials needed for the project.

- The project management skills will be handled by a project manager hired by the department to oversee this project.

- A new computer file server, telecommunications equipment and software to run the application will also be needed for the project. Hardware and software maintenance contracts will also require new resources.

- New resource requirements must provided as a result of adding new staff. This includes rent, phones, supplies, a PC and financial resources to provide training to develop staff skill levels.