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Meeting

The Telecommunications Information Council

Legislative History
and
Implementation Plan

The House Special Committee
on Telecommunications

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Senate Finance Committee

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Executive Summary

This report was prepared at the request of the House Special Committee on Telecommunications with funding provided by the Senate Finance Committee and the House of Representatives. Other support was provided by the Department of Journalism and Public Communications of the University of Alaska Anchorage.

The report includes a review of the events that led to creation of the Telecommunications Information Council. It also includes an interpretation of the Council's powers and duties, and recommendations as to how it might initially proceed.

The Council was created in response to a need for centralized direction of telecommunications policymaking that had been recognized within both the Executive and Legislative branches of state government.

The Council has several immediate tasks. The first of these is to assert that management of information systems is a responsibility deserving the attention of top level managers. Until top managers provide policy direction to the development of information systems, they will have to settle for systems that do not fully meet their needs. The situation today, in many parts of state government, is that lower level managers with greater technical knowledge are telling top managers what they can and cannot do.

The Council is to prepare an overall plan that will allow it to intelligently manage information. This will require the Council to identify general policy objectives and to develop at a conceptual level understanding of information technologies such as networks and database management systems. It will also be necessary for the Council to obtain an inventory of information now held in computer databases.

The Council is to provide direction to individual agencies in the development of information systems plans. Such plans can lead to the generation of better quality information and to efficiencies in its production. Direction is necessary so that information is stored in forms that make it easily accessible by people in other departments and even, perhaps, in the public sector. This direction can also lead to elimination of redundant and little-used databases.

The Council is to provide guidelines for public access to computer-based information. There are a variety of ways in which

access could be provided. Other states have considered alternatives ranging from computer printouts to videotex systems.

The Council is also to provide policy direction for broadcast telecommunication systems. These are to be regarded -- the intent language of the law creating the Council says -- as information systems. Broadcast policy is now formed by government entities with conflicting interests and no one to appeal to.

These duties give the Council the power to transform the way state government operates as well as the relationship between Alaskan citizens and their government. Its actions can have a lasting economic and social impact on the state.

Legislative History

The Telecommunications Information Council: Evolution of an idea

The Telecommunications Information Council is a Cabinet-level policy making body. Its interest is in seeing that the state's telecommunication resources are used effectively to meet the needs of Alaska's citizens. Its authority comes from legislation passed by the 15th Alaska State Legislature and enacted into law by Governor Steve Cowper in June 1987.

The intent of the Legislature was to create a body capable of providing policy direction for the diverse telecommunications activities of the state government. These activities range from the internal information activities of state agencies to the support of broadcast telecommunication services that reach communities throughout the state. Telecommunication is used to support decision making within state government, to enable the citizens of Alaska to more fully participate in the political, social and economic life of the state, to instantly communicate emergency warnings, to improve the quality of education, and for entertainment. Because of the relatively small population of the state and the high cost of many of the telecommunication technologies, none of these services could be maintained at their present level without state support.

It was the belief of the Legislature that Alaska would be better served by telecommunication if a high-level body with broad oversight responsibilities for it was established.

The state has a strong record of providing technical support for a great variety of telecommunications systems. Divisions within the Department of Administration provide much of this support. The Information Resource Management Expenditure Approval Committee (also within the Department of Administration) also plays a role as a review body for expenditures on information processing. This support has made possible the development of innovative telecommunications systems such as RATNET and Learn/Alaska as well as audioconferencing networks and two statewide data communications

systems. These systems have drawn attention across the nation and even in other countries.

But centralized management of information technology is becoming increasingly difficult. This was acknowledged in Executive Branch communications that took place a year before the Legislature passed House Bill 40. A state auditor, in an April 1986 report to the Department of Administration, said:

"The current statutes [Alaska Statutes 44.21.150-170] do not accurately reflect data processing as it exists today. Management of a centralized function is vastly different from the management of a fragmented function. The actual condition of data processing in Alaska should be studied and a decision should be made as to where responsibility for managing the various data processing functions belongs. A plan should be prepared to present a structured approach to implementing a new allocation of responsibilities."

Then-Commissioner Eleanor Andrews of the Department of Administration wrote in response:

"It should be emphasized that recent changes in technology are having a greater impact on the individual than at any other time in the history of computing . . . there are thousands of employees discovering ways to do things better and recommending them to managers that are not technologically prepared to make decisions. Management is overwhelmed both by the intricacy and the volume of activity . . ."

The state's record of providing policy direction for telecommunications activities is much weaker than its record of providing technical support. At one time there was a policy body: The Governor's Office of Telecommunications. However, in the 1980s responsibilities for various parts of the state's telecommunication system have been fragmented.

The Information Systems Committee, which is concerned with computers, is an interagency group but a review of its meeting summaries since 1984 indicates that it has given most of its attention to technical rather than larger policy issues. It comes closest to taking a policy perspective in **Information Systems Planning Procedures for 1986**, in which identification of agency goals is identified as the first stage of the information systems planning process. But the goals that are being talked about in the report are information processing goals, not the business objectives of the agency. Thus even this useful document stops short of encouraging telecommunications policy formation from a management perspective.

The Alaska Public Broadcasting Commission is the state's policy body for public television but there is no higher policy body for it to report to. Therefore there is no one in a position to reconcile the interests of public television, the Rural Alaskan Television Network (RATNET), and educational television when they conflict. And they do conflict, as a review of RATNET minutes will show.

The absence of telecommunications policy direction has been particularly unfortunate in a time of declining state revenues. The search for economies within the telecommunication system has taken place in an environment that has provided little opportunity for discussion of the implications for Alaskans of alternative actions.

Evidence was collected by the House Special Committee on Telecommunications in 1986 which indicated this lack of direction had resulted in some decisions that had weakened the system. The evidence is presented in **Managing Alaska's Information Resources: A Proposed Statewide Policy** which became the supporting document for House Bill 40.

It appeared in the early days of the 15th Legislature that additional decisions might be taken which would weaken the telecommunication system further. These decisions were being considered because their negative implications had not been recognized. There was no body within state government that was charged with the task of identifying the consequences of such decisions for the telecommunication system as a whole. **The Future of State-Supported Broadcasting in Alaska: Final Recommendations**, which was prepared for the House Special Committee on Telecommunications during the session, became a second supporting document for House Bill 40 which later became CSHB40 and was signed into law on June 16, 1987.

It is evident from this brief legislative history that a primary mission of the Telecommunications Information Council is to assume broad responsibility for the state's telecommunication system. It should protect that which needs protection, and encourage the development of that which needs to develop. And it should be ready to discard that which is no longer useful.

The tasks of the Telecommunications Information Council as defined by the Legislature are to identify and address telecommunication policy issues and to coordinate the development of information systems. The goal of the Council is to increase the responsiveness of state supported telecommunication to the needs of its users. It is the belief of the Legislature that realization of this goal will result in economic benefits for the state government and the people it serves.

The Council is required by the law that created it to:

- *Establish guidelines and prepare a state information systems plan;
- *Direct state agencies to prepare agency information systems plans;
- *Establish guidelines for public access to information.

While the emphasis in these requirements is on information, it is clear from the language of the law that the Council is not expected to confine its activities to computer-based information systems. The emphasis in the law is on the *uses* of telecommunication, not on the technologies themselves.

Computer systems are just one means of moving information and providing access to it. As telecommunication technologies evolve, it is becoming increasingly difficult to distinguish among them. Distribution systems such as satellites and fiber optic cable move text, visual and audio information simultaneously. Computers talk and provide animated graphics. Telephones contain computers (a convergence of technologies that preoccupied the FCC in the 1960s and '70s). Television monitors show textual information. A decoder, a telephone line and a keypad can turn a television set into a computer terminal linked to remote databases. Laser discs can substitute for computer memory and traditional libraries for high volume storage of information. These convergences of technologies provide an additional argument for focusing at a policy level on what telecommunication does -- and what we want it to do -- rather than on its internal workings.

This, then, is the environment within which the new Telecommunications Information Council finds itself.

Implementation

The First Step: Return of Control to Management

The Telecommunications Information Council puts the managers back into information management. In addition, it shifts the emphasis from management of a technology to management of what that technology produces.

That, in a short paragraph, is a description of what the Telecommunications Information Council is and why it is such a radical departure from what has existed within state government up to now. What follows in this section is no more than elaboration . . . a description of how we got to where we are today, and where we can hope to get if we take advantage of the opportunity that the Council provides.

It has been observed that, just as telecommunication systems evolve, so does their management. As telecommunication systems become more complex and more important in the affairs of the organization, responsibility for them slowly moves higher in the chain of command. Thus we find in some private corporations today that the highest ranking information manager carries the title of vice president.

The evolution in data processing management was described as a six-stage process in an article written by a Harvard business professor that has become something of a classic in the eight years since its publication. Alaska now appears to be at Stage III in this process (See Figure I). The Telecommunications Information Council has the potential of moving state government to Stage IV and beyond.

Today the state has the control mechanisms in place. Data processing purchases must be approved by the Department of Administration, which is therefore in a position to make sure that there is no duplication and that new systems are compatible with other parts of the state's system. It is also in a position to realize economies by making bulk purchases and to make users accountable through a chargeback system. All this is seen within the Harvard

Alaska in 1987

	Stage I Initiation	Stage II Contagion	Stage III Control	Stage IV Integration	Stage V Data administration	Stage VI Maturity
Growth processes						
Applications portfolio:	Functional cost reduction applications	Proliferation	Upgrade documentation and restructure existing applications	Retrofit existing applications using database technology	Organization integration of applications	Application integration 'mirroring' information flows
DP organization:	Specialization for technological learning	User-oriented programmers	Middle management	Establish computer utility and user account teams	Data administration	Data resource management
DP planning and control:	Lax	More lax	Formalized planning and control	Tailored planning and control systems	Shared data and common systems	Data resource strategic planning
User awareness:	"Hands off"	Superficially enthusiastic	Arbitrarily held accountable	Accountability learning	Effectively accountable	Acceptance of joint user and data processing accountability

Figure I: Information Processing in Alaska

based on "Exhibit I, Six Stages of data processing growth," in
 "Managing the Crises in Data Processing Management," Richard
 L. Nolan, Harvard Business Review, March-April 1979.

professor's model as natural reaction to the previous stage: Contagion. In that stage there was little control as user-oriented programmers worked with users to create systems. Better state control of equipment purchases has addressed the problems that emerged then. But control should not be the goal. Because, with control, new problems arrive.

Control, in the companies on which the Harvard professor based his model, led to user frustration and alienation. In Alaska, evidence of this happening can be seen in such instances as that of the four state workers in an Anchorage office who carry their own Macintoshes to work each day because they cannot get the state to buy Macintoshes for them. The state has bought them a printer but it is able to print only the textual material they produce. Most of their work, however, is graphics modelling. These workers use computers to help them visualize problems that are so complex some have led to years of litigation. They use their own computers to do this because state-provided computers lack the capability.

Another case: a state worker in one department wanted to look at the database containing Attorney General's opinions. He was unable to do so because the password for that database had been changed. Attorney General's opinions are not restricted information, nevertheless, in the interests of database security, they had been treated as such.

The task of the state as these problems emerge is to return ultimate control to the users without sacrificing the gains that imposition of controls brought to the system.

What has happened in the state -- and what happened in those companies -- is that higher management has delegated to a lower level the responsibility for information technology management. The reasons for that are understandable enough. Information technology is complex, and it's constantly changing. Top level managers tend not to understand it, not to have the time to figure it out. So they delegate responsibility for it.

Those given the job of managing the technology are told to make sure that the top level managers' fears about it are not realized. What are these fears?

We don't want to pay too much for the technology. We don't want to be taken advantage of.

We want it to work. When everything is plugged together, we should get the outcome we paid for.

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Managers need not understand the details of fiber optic technology. They don't have to know about the spacing of repeaters. It is not necessary to know what ROM, PROM, EPROM, etc. mean, nor how to program in Cobol for them to be good managers of technology. They should be aware, however, of the types of things that can be done with technology. They should know that information can be passed between quite different computer systems. They should know what an expert system is. They should know how simulations can help them analyze management problems. They should know, in other words, the kinds of things information technology makes possible. With this information, they are in a position to work productively with technology experts to reach their business objectives.

In other words, managers should take back for themselves the leadership in managing. It is not appropriate for them to have lower level managers telling them what they can and cannot do. This is the first of the challenges facing the Telecommunications Information Council.

The Second Step: Exploring the Possibilities

This section is intended to show what the Council could accomplish by developing an overall information systems plan. It reports the experience of other states and of private industry and the conclusions of some telecommunication experts. It also draws on the intent language supplied by the House Finance Committee and the House Special Committee on Telecommunications. This section is intended to show what telecommunication can do for Alaska if we create the opportunities.

Sec. 44.19.504. POWERS AND DUTIES. (a) The council shall

(1) establish guidelines and prepare a state short-range and long-range information systems plan to meet state needs;

It would appear that two of the first tasks the Council will face are:

1. Deciding what it wants a state information system to do.
2. Assessing the government's information resources.
What information is collected by state government? Where is it located? How can it be accessed? How is it used?

The law requires members of the Telecommunications Information Council to look at telecommunication in a visionary way. The Council is mandated to look at the whole system. And it is told to look at it from the perspective of needs. The following paragraphs of the law make clear that the needs to be considered are those of both state agencies and the public. The Legislature expects the Council to look at telecommunication among agencies as well as within agencies. This is implicit in paragraph 1 above and is made explicit in the bill's intent language.

The members of the Council, by virtue of their positions as the chief administrators of major agencies, are better qualified than anyone else within government to look at telecommunication in this way. As they discuss how telecommunication can be made to serve them, they will quite naturally be discussing how telecommunication can best serve state government. This is one reason why commissioners, rather than deputies, were specified as the members of this Council.

It is not the intent of this section to impose a vision on the Council. It can perhaps be helpful by providing for the Council a glimpse at the visions of others.

What others have done

The information systems that have been developed in recent years are enabling people to do things that have never been done before. Information specialists in private industry have been talking for several years now about their decision support systems, management information systems, and information resource management. Job titles that began to appear as the concept of information management caught hold include database administrator, database librarian, chief information officer (CIO), and knowledge engineer. It is instructive, therefore, to see how these systems have been used.

Here are some examples:

New Hampshire Governor John H. Sununu introduced an integrated, computerized financial system for his state, which he monitors from his own personal computer. Now "he doesn't have to wait 15 to 20 days for a written financial report," an aide says.

The director of North Carolina's Agency for Public Telecommunications produced and appeared on a televised conference with officials and representatives of the public in 30 other states.

A Wisconsin legislator uses his computer as a bulletin board for posting state documents and receiving constituent messages. He also electronically mails press releases.

The Florida Department of Revenue matches its sales tax file with the file of new car registrations from the Department of Highway Safety and Motor Vehicles to identify individuals who have failed to pay sales tax.

Pennsylvania has completed a test of a program that replaces food stamps with point-of-sale terminals and magnetic strip cards.

Du Pont has been experimenting with computers that combine words, sound and graphics in a single document. "Write a memo to the boss, add a little noise to keep him awake and perhaps an animated graph showing the rising profits of your division."

In Texas, 25 subscribers to a new service that enables users to chat among themselves through their computers wrote a Gothic novel on-line.

France's two largest credit-card organizations have introduced a payment card that combines microchip and magnetic stripe technologies. Their "Smart Stripe Card" contains an embedded chip which gives it intelligence and memory. A Paris university is using the smart card as a portable school record.

In federal government, income modelling, statistical analysis, econometric forecasting and income tax analysis programs are being used to formulate policy alternatives.

Alaskans have long been leaders in innovative uses of telecommunications technologies. For example:

The House Special Committee on Telecommunications held a three-month-long electronic mail discussion of Alaskan telecommunications issues in the fall of 1986. That discussion, involving about 50 people across the state, helped establish the agenda that the committee has since followed.

The public affairs office of the University of Alaska Anchorage routinely sends electronic press releases to the computers of the Anchorage newspapers.

The Alaska Public Radio Network uses the University of Alaska Computer Network to circulate information among member stations.

The Department of Education recently began using the University's computer network for electronic mail.

There are a number of electronic bulletin board services in Alaska, including one just started at the Anchorage Daily News.

Users of the Daily News Service can submit story ideas and leave notes for the managing editor.

Long-distance computer communication was helpful in the production of this report.

All of these are nontraditional uses of computers and telecommunications. And all of these hold the promise of improving government service. Many of them hold the additional promise of reducing the costs of government.

What others have said

These examples, however, are no more than pieces of a larger picture. That picture is provided by the vision of information policymakers, and it is captured in the words of a California business professor writing about the Information Age:

"The new Information Society is expected to offer to millions a whole new dimension in access to stored information and problem solving software. The key word is *access*: it is expected that many millions of people will have greatly increased access to a wide array of information services inexpensively, rapidly, and in environments of their own choosing."

This description fits equally well the governor of New Hampshire pulling information out of databases, the Wisconsin legislator dispatching electronic press releases to newspapers, and the Du Pont worker watching and hearing a computer memo.

Another futurist talks about the management problems posed by information, and what he says is reminiscent of what Commissioner Andrews said:

"The further a society moves toward making its living from the manipulation of information, the more its citizens will be caught up in a continual struggle to reduce the information overload on their desks and in their lives in order to reduce the uncertainty about what to do. In the information society, we trade glut for scarcity, flood for drought."

At every level of management, the problem is one of extracting the relevant information for decision making from a larger base of material. This is not an insurmountable problem. However, when it is recognized as a general problem it can also be recognized that a management strategy is necessary for dealing with it.

Policy issues for the Telecommunications Information Council at this level are likely to include how to provide support of database management systems. But, to make it easier for managers to obtain the information they need, it will be necessary to provide access to even larger volumes of information than is the case today. Top level managers within departments need to be able to pull out information from different divisions. Within the governor's office, managers need to be able to pull out information from different agencies. Thus networking and database management become additional policy issues.

A 1981 report by the technical director of the University of Alaska Computer Network advised:

"There is no 'ultimate' computer which can do all things for all users. In an academic community the trend is toward multiple machines, each selected and tuned to be the best possible to perform its prescribed tasks."

And:

"Eventually the UACN will be a network in a network of networks."

In other words, we are unlikely to be able to find a single, technically elegant solution to information problems. To the contrary, computer companies such as DEC and Tandem are devoting considerable energy to creation and support of networks that permit communication between quite dissimilar computer systems. Similarly, in a Delphi survey reported in **Talking to Each Other: Talking to Machines** three Alaskan telecommunications experts said that if they were to operate a telecommunications business in the year 2001, their business activity would be to connect dissimilar communications systems.

In the long run, networking may well be a better solution to information systems problems than would continued imposition of the equipment standards in place today. This, too, is an issue meriting examination by the Council at this broadest policy level.

The Third Step: Improving Communication Within Agencies

Improving communication within state agencies might seem to be the easiest task facing the Telecommunications Information Council. It is not, however, the first task set out within the law. That is because it is not logically the first task the Council should face. This task is secondary to that of developing an overall information plan for the state. Both the wording of paragraph 2 and House Finance Committee intent language make this clear.

(2) in accordance with the state information systems plan, establish guidelines and direct state agencies to prepare agency information systems plans;

The Finance Committee intent language cautions the Council against involvement in intra-agency information systems activities except to the extent necessary to ensure that they conform to "broad, statewide information systems policy guidelines."

Within-agency information activities are of concern to the Council because they include development and management of databases that could be shared by users in other agencies and in the private sector. One of the most valuable contributions made by this year's **Information Resource Management Users' Guide**, produced by the Department of Administration, is its section on databases in which it puts forward content standards and talks about the importance of a data dictionary. "The purpose of database administration," the report says, "is to provide for the State the capability to organize its data so that it is available when needed, sharable, accurate and secure." Thus useful standards have already been put forward for the management of computer-stored information within agencies. If the standards are followed, the Council's task of encouraging the flow of information among agencies is greatly eased.

A problem that is much less easily addressed is the duplication of information in different databases within a department. It is less efficient to enter information in two databases than one. But it happens. Ideally, departments should enter information once. It

should then be extracted as necessary for use in other databases within the department. This problem is of concern to the Council because redundancy within databases complicates the finding of information by users outside the department as well as those within it. Also, it is more costly to update databases when new information must be entered more than once.

A second problem is the maintenance of databases that are not used. Departments -- in providing inventories of the information they hold -- could also be asked to indicate who the users of this information are. In this way databases that are not serving any useful purpose could be identified and eliminated.

These are examples of information systems issues within agencies that should be policy concerns at a higher level. Policy oversight can help assure the quality of information held within state agencies, while ensuring that the costs of acquiring and maintaining the information are not disproportionately high.

The Fourth Step: Providing Access for the Public

The third task identified for the Telecommunications Information Council is to make information held by the state available to the public. This task is far more difficult than improving information flows within departments, or between them. Data security, always a concern with computer systems, becomes a glaring issue when talk turns to the possibility of providing the public with access to state databases. It is a valid concern, but it is well to remember at this point that it has been successfully dealt with by universities across the country. It is important, too, to keep in mind that access to government information has always been considered to be a basic right of the American people.

The law forming the Council states:

(3) in accordance with statutes governing the availability and confidentiality of information, establish guidelines for the accessing of information by the public;

Several states have recognized in recent years that the development of computerized information systems has made it more difficult for the public to gain access to public records. Information that once existed on paper now resides in computer memory. Some of this information has economic value, some of it is of interest to lawyers, to Realtors, to reporters.

James Madison wrote in a discussion of the First Amendment that "the right of freely examining public characters and measures, and of free communication thereon, is the only effectual guardian of every other right." Much more recently, the Federal Freedom of Information Act was passed in recognition that access to government information is one of the checks and balances that makes our government work. A Florida court has held that public records include "all information in a computer." There are, therefore, Constitutionally-based arguments for providing public access to computerized information held by state government.

State governments have provided access to computer-based information in a variety of ways. The Council's task, in responding to

Paragraph 3, is to determine which of these ways is most appropriate for Alaska. Alaska has already taken the first steps to make computer-based information available to its citizens. Alaskans now can gain access to legislative databases by going to the Legislative Information Offices where terminals are located. In addition, several public access terminals to these databases are available in Juneau.

The public could be allowed to examine printouts, copies of printouts could be provided -- which is commonly how Alaska legislators receive information from the Executive Branch -- , public terminals could be provided that would give access to files in databases, databases could be copied onto magnetic tape provided by the information seeker, state computer networks could be made accessible via telephone by private individuals with micro-computers.

Each of these alternatives carries its own costs and risks. The time (and therefore the cost) required to prepare information for public consumption varies considerably for the different alternatives. Security becomes a consideration if public access is provided to state databases. But each of these alternatives has been found practical in various situations by other government bodies. What follows is a description of what some of them have done:

Montgomery County, Pa., has a free, remote access system that provides a variety of court information including attorney schedules, civil court schedules, and permits searches for information about judgments, deeds, and tax claims.

Two Georgia counties have contracted with a private company to supply public record information on-line to heavy users. The counties provide computer tapes to the private company.

New York and South Carolina are investigating videotex systems for responding to requests from the public for state information.

Ohio's Department of Development has created an information system that provides seven databases including patent information, list of Ohio companies doing technological research and development, list of academic researchers, etc. Its objective is to promote technological innovation by helping entrepreneurs and academic researchers to find each other.

Nebraska's Telecommunications and Information Center is creating a state business information network.

Few states have greater opportunities than Alaska in meeting the special challenge of providing public access to information. The importance of this access cannot be overstated. Access in the new Information Age may well spell the difference between prosperity and poverty for many.

Because communication has never been easy in this state, Alaska's citizens are used to solving information problems in creative ways -- as in the case of the Barrow judge who uses radio broadcasts to reach prospective jurors and in the use throughout the state of rural radio broadcasts for message services.

The Telecommunications Information Council must provide the leadership and point the direction in this enterprise. Is a single way of handling information requests the best solution? Should there be a range of solutions suited to different types of information requests? Should there be one solution for the shorter term, another for the long term? What are the costs/benefits of the various alternatives? Is it possible to find an elegant solution that no one has thought of before?

The examples drawn from other states do suggest one long-term solution that might be considered by the Council together with other alternatives:

Alaska's experience with broadcast telecommunications suggests one approach to this problem. The state has worked with public and private entities to build broadcast telecommunications systems; by doing so it has minimized its own costs. It could take this approach, too, in helping to develop a public access information system. It could invite private enterprises to join in building a statewide, public/private information system. There is some interest within the University community and the private sector in joining in such a project. France, which has successfully developed a nationwide information system, provides a model for such a system in Alaska.

Whether this idea seems attractive or not, it illustrates the type of thinking that will be needed to provide a lasting solution to the problem of public access.

The Fifth Step: Dealing With Broadcast Telecommunications

Broadcast telecommunications are information systems. That is easy enough to see in the case of Highway Patrol and marine radio frequencies, but probably much less obvious in the case of television channels which provide such fare as soap operas. Yet even soap operas can be used -- as the Mexican government did a few years ago -- to change public attitudes.

The House Finance Committee's intent language asks that the state supported broadcast network be treated as an information system and says:

"The Legislature intends that the Council assume primary responsibility for policy development for the broadcast system, so that the public's information needs are served."

The state government's interest in broadcast content has been limited and its approach to content issues has been even more conservative than state law would seem to require. Current law bars the state from making specific program decisions. Such decisions would be viewed as interference in the editorial or creative process. The law creating the Council moreover cautions it against involvement in programming decisions. These laws do not bar the Council, however, from making broad decisions that have an impact on content. The state has made such decisions. The distinction between programming and content is important, for it makes clear what authority the Council has to take actions affecting state-supported broadcasting channels.

It would seem appropriate for the Council, for example, to provide policy direction to the discussions of the place of educational broadcasting in the state's broadcast telecommunications plan. The state has gone from having a statewide network exclusively for educational programming to broadcasts of educational programming between the hours of 1:30 and 5:30 a.m. on the RATNET channel. Is this a better use of state-funded broadcast channels? Should the University in Anchorage be allowed to pursue a television license so that it can broadcast educational programming in southcentral Alaska?

Similarly, Alaskans across the state have said in response to questions in several surveys that they would like to see more state-oriented programming. Should the state be encouraging the production of such programming and its broadcast on the channels that the state helps underwrite?

All these are policy issues that can be most appropriately addressed by the Telecommunications Information Council. These are examples of broadcast policy issues which -- if they are addressed at all -- are addressed by vested interests within government. There is no body that can weigh the various arguments and act as mediator.

The Council, however, should have an additional interest in the broadcast telecommunications channels, an interest transcending their content. Telecommunications systems are Alaska's roads. They make it possible for people to be reached who would otherwise be inaccessible. These links can be used wisely or unwisely -- and that is a policy concern for the Council. But they can be used only if they are preserved -- and that is a separate and equally important policy concern for the Council.

The broadcast channels represent opportunities that can be lost if the system is allowed to deteriorate. Today they carry a wide variety of information on which Alaskans have come to depend -- from aviation broadcasts to programs about how to deal with hypothermia to emergency warnings. The RATNET channel is being used by the University's Rasmuson Library in Fairbanks to transmit large volumes of textual information to sites scattered across the state. Other valuable uses of the broadcast system may be developed in the coming years -- if the system is still there.

The broadcast system as it exists today is described in a House Special Committee on Telecommunications document, **The Future of State-Supported Broadcasting in Alaska: Final Recommendations**, which was issued last spring and revised during the summer.

The challenge for the Telecommunications Information Council in the area of broadcasting is to provide a policy framework where none has existed before.

Conclusion

The new Telecommunications Information Council has been given a mandate which empowers it to bring great changes to the state of Alaska. It can change the way people communicate. It can help the state government to organize its information resources and to use them in ways that were impossible before.

The Telecommunications Information Council can bring Alaska fully into the Information Age. It can formulate the larger policies and provide the needed direction as Alaska's information systems continue to develop.

Or . . . it can choose not to accept that vision. It can take a technocratic stance that traps us in the present. We will then remain pioneers, working with the tools of pioneers . . . while civilization passes us by.

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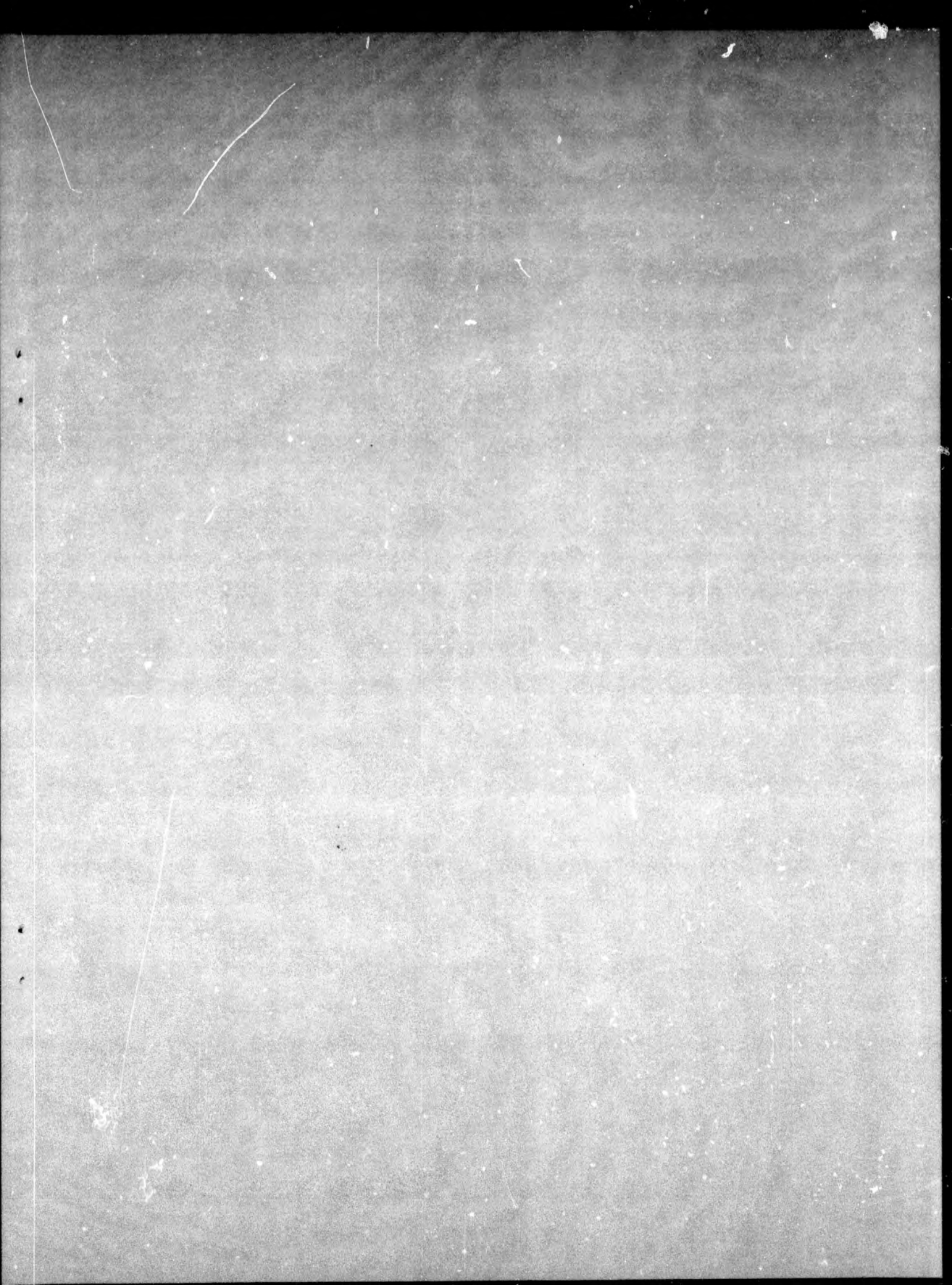
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TELECOMMUNICATION INFORMATION COUNCIL

September 3, 1987

1:30 p.m.

Governor's Conference Room

Juneau, Alaska

CALL TO ORDER/OPENING REMARKS

The Honorable Steve Cowper, Governor: Representative Boucher, no doubt, will get with us here pretty quick. The purpose of this meeting is to begin the deliberations of the Telecommunication Information Council, which was established by law in the last legislative session. The purpose of which is to try to organize and to make more efficient the delivery of information that goes on in every governmental department.

I had a personal experience related to that in the last legislative session. In the middle of a very difficult budget process, we discovered that the financial figures and the budgeting figures and the accounting figures were all different. None of them related to the other, and furthermore, there was no way until we worked on it. There was no way that you could try to reconcile the figures. We didn't know -- we knew how much money we were supposed to have, but we didn't know how much we did have. That was as near as I could come to understanding it.

The kind of information that is generated by government is useful, not only to assume it is accurate that is, is useful not only to people across department lines, but also to the University of Alaska, to various municipalities, and to individuals. Periodically during the last, I suppose, ten or twelve years there have been sort of half-hearted attempts to try to reconcile and to coordinate the use of information within government. None of it's worked. I don't know if anyone went into it with any sense of purpose or not, but I'd like to do it. I think that it's likely that many of the Commissioners here will have to designate people to take care of this duty, but I do think that it is important and I don't think that it's anything that we're going to sort out by the next Legislature. But it's important that we get started on it and that we understand how much is at stake here.

Actually, that is what government is. It's the movement of information up to people who supposedly make decisions and then back down to the ones that implement the decision itself. So there is a lot of information in departments that isn't available to other departments, and a lot of information in general that isn't available to the public in any comprehensible format. The purpose of this committee is to try to sort that out and make information work for us instead of against us.

I have to tell you that I am not an expert on the subject. If I talked anymore you would be able to figure that out for yourself. So at this point, I would like to ask John Andrews to give his presentation and go from there.

INTRODUCTION TO INFORMATION RESOURCE MANAGEMENT

John Andrews, Commissioner, Department of Administration: This body now sits as something described in the new law that passed here as the Telecommunication Information Council and the statutes give us certain tasks to try to work on. Two of them relate to planning, one of them relates to guidelines for operating procedures. It says we're suppose to prepare a statewide information plan; to provide guidelines for individual agencies to design compatible plans and there is a lot of language about the top down approach to that from this body being the one that decides what things are compatible with. We would make the first move. Agencies would respond with plans that conform to that and operating agencies might, right out there in front, would respond with operating procedures that conform to all those plans. Further, the statute requires us to provide guidelines for public access to state information. Not just information amongst ourselves, but information that is (inaudible) to the public.

I've been through a lot of dry planning exercises over the years and no doubt you have as well. So I'd like to take a minute or two to talk about planning about what. What is it about information resource management that would require that it needs to be planned. What kinds of difficulties are we apt to run into? How that will relate to the operation of our departments? How it will relate to existing problems we have already? What benefits might this group, advantages might this group have in the future that we did not have going into the execution of this new law?

The phrase "information resource management". . .

Teleconference Moderator: Teleconference hooked on.

Governor: Red, glad your here.

The Honorable Red Boucher, Representative: Thank you, Governor.

Governor: Would you like a sandwich?

Boucher: What?

Governor: You came in on the middle of Andrew's presentation and. . .

Boucher: We'll just hang on. Whenever you are ready, sir.

Governor: O.k., would you continue John.

Andrews: The point about the phrase "information resource management" is obvious in the words if you think about it, that information is a resource and it needs some management. It needs management because the process that it involves is both complicated and essential. It's difficult because it takes three things that are always scarce: it takes money, it takes time, and it takes talented people. It's valuable because it gives us importance with its quality, the life blood of our management process. The quality of the information that we get will be a limit on our management effectiveness. The timeliness of the information we get will be a limit on our reaction time to the problems that we find day-to-day and the appropriateness of the information will limit the range of options we're able to entertain in addressing management problems.

The difficulty in the money is fairly staggering. It requires money for occasional capital outlay, for expensive staff - the kinds of technical people to support the operations - and it requires us higher paid managers to be involved in information resources. All those things involve a lot of money. To give you a feeling for how much money, we spent, a little over a year ago, we spent fourteen million dollars to buy the bulk of the computer plant we have in place now. The current estimate I have is that if we don't do something different, the life of that plant is going to expire in twelve to fourteen months. Fourteen million dollars and two years later it isn't (inaudible) it. It's estimated to cost about nine million dollars to extend that life another three to four years so what we will have had, if we don't do anything different, what we will have had is an annual capital outlay of between four and five million dollars for centralized computer equipment, which doesn't include all the other facilities that you see around in your own departments. This is the data center stuff. That is a sobering number to me. Five million dollars a year every year to keep going on and no end in site. It's expensive and the people are expensive too.

The time element of the difficulty is no less staggering in a way. Because to get us to a place where we can really rely on the information, we get at that critical point of decision-making and be confident that it is appropriate, accurate, and timely, we're going to have to work from the murkiness of the situation we have now and very carefully. We cannot just scrap everything we have, all the applications we have running on the state data center. We cannot just throw them all away and do them again right. That would take years to even design, and by the time we got done with the design

then probably the situation would have changed dramatically enough to where it wouldn't be the solution anymore. We would have squandered millions more, and meanwhile (inaudible) along with the present difficulty, I know (inaudible) worse and we've done that, too. We've tried to reach out, five years out into the future, design a tens of millions of dollars of a solution and ended up throwing it away. We can't afford to that anymore. Also strategically, the -- let me come to that later.

The difficulty in the talent is something we face in all our operations of state government, I suppose. In this area it seems particularly sensitive. We need to get people looking at this problem who have three kinds of characteristics about their talents that seem important to me: They have to have sufficient understanding of the current situation to where they can gain some insight into the present pain. So I don't see contractors coming in from outside and doing this for us. We are the people best qualified to that. We are the ones that understand most what the present problem is. I don't think we can farm that part of it out. They also have to have some vision for what a better tomorrow looks like. They need also some wisdom based on experience as to how to get there in an orderly manner without it costing more to solve than it costs to bear. Now that's a scarce combination, I observe, in any group but in state government as well.

To the extent that the problem pervades all of our departments, we have to have that kind of talent base that we can draw on in all of the departments to affect a solution. I don't think it is something that the Department of Administration can do for you. As the Governor pointed out, another aspect of the management of information resources is that it crosses all the more or less artificial administrative lines that we draw between departments, between branches of government, and between the public and private sectors. Some examples of those will make that point clearer:

The statewide accounting system is, in some sense, owned by the Department of Administration. It's our baby to keep it running, but it's used mainly by other people. We are a user too, but that's used by people all over the state. Virtually every division and every section uses the statewide accounting system. That was the idea of a statewide accounting system. So all the problems associated with that crossed departmental boundaries.

Payroll is another example where we have a centralized idea of a state payroll that many departments are involved actively in data processing activities, designing new things to nail onto the side of the payroll box to help them deal with the present difficulty with that application. The budget is an example that crosses all of these boundaries in state

government. Public safety is an example where we cross the boundary with the local governments. The local governments tie into the data base that the state uses in public safety applications. And in private enterprise we have travel agencies that are connected to the marine transportation data base. Department of Natural Resources has a relationship with a private vendor who supplies information to the public for them in some contractual relationship there. Construction engineers use some of the scientific equipment in DOTPF, and here and there and around there are computer consultants, contract programmers, that have terminals connected to the state mainframe in their private offices.

The difficulty with that area is not that it is not a good idea. It's probably very helpful to travel agencies to make reservations directly and for programmers to be able to tune right into the application that they have a contract to maintain. The difficulty is in the equity of the questions and the cost recovery questions associated with that. Some travel agencies enjoy this relationship free of charge. Others maybe don't even know about it. We have no statewide policy, we have no management of that information availability on a statewide basis.

One of the difficulties that we have had in the past is that the statutes have charged the Department of Administration with two kinds of responsibility as the caretakers of the equipment. Not just the data centers, but the communications network that is outlined on some of these handouts and the telephone operations here and there around. We're charged with wearing two hats. One says that we're supposed to be good servers of our customers. We're supposed to provide whatever facilities and talent are needed to meet the need that you bring to us. The other part of our charge is that we're supposed to be sort of policeman who say something about whether that need is justified or not. Whether that extra program you want to run on the computer is worthy of being on there, or well formed or appropriate to your management problem. That's a difficult hat for the Department of Administration to wear.

In our history, not just my experience but predecessors have been involved in this thing over the decades, we have opted for the former. We have opted to wear that server of our customers hat as our predominant mission to meet whatever need evolves, and if anything to stay out ahead of that need, and I think that is why it comes up to four or five million dollars a year. Trying to stay out ahead of a need that is not being managed in any centralized way is a very expensive operation. You can see from some of the charts - I think you have pictures of most of them in your handouts - we have a lot of plant. We have a lot of computer facilities sprinkled

around the state. We have a data network that goes from Ketchikan to Unalaska, and from Barrow all the way to San Francisco. Thousands of terminals connected to that operation, all of them expecting reasonably rapid response time when they sit down at the terminal like that. So we have been fairly effectively staying out ahead of the need.

But the question now is whether we can afford to do that at the current growth curve that the need is occurring. The other hat, the . . . try to decide what a good customer looks like and say no to those others has largely failed. We've made a couple of attempts to try to deal with that over the years.

Used to be, when I first came to Alaska, the method was much simpler then in the computer room, but even so we had our difficulties. The method then was pretty much the squeaky door way of dealing with customers. It was easier to control with one doorway, so to speak, because we did not have on-line terminals all over the state. That wasn't going on here. That wasn't going on anywhere in the early 70s. So if you wanted something done, you brought it over with a little slip signed by your supervisor that says, "This is a hot one. I need this done," and somebody arbitrated those, that pile of emergency requests, and nobody was very happy with that.

We tried for a while, several times we tried with chargeback mechanisms where we tried to use the financial incentive of paying for each use as a management control incentive to try to control the growth of the demand by making people conscious of and directly involved with the cost of that incremental demand. Nobody was very happy with that either and it didn't work. Largely in our most recent experience, because of the decline in the budget that was no time to begin adding costs, pass-through monies, to your agencies, that method has died.

We have in my observation, in the last eight or nine months we have a growing interest in most of the agencies in controlling their use, the cost implications of their use of the machine, and I think that is real healthy. I see a real expanding consciousness of the fact of the cost, and some willingness to cooperate in working together to try to control those things. So that gives me some hope that a body like this can rise to the occasion. I think that the interest in the agencies is there. The form of this council, the mechanism of this council I hope, will give us a medium with which we can work out in cooperation to deal as a group with our problem. That's my sales pitch today, that it really is our problem. If I continue to spend five million dollars a year, that's money you can't spend. If you know better, if you know a way that we can do it for two and a half million dollars a year, we all profit from it. If we can figure out together a way to control

those costs by doing less or doing better, something, then we're all going to profit from that.

I would just like to stress, one more time, I guess that it is going to be a very difficult undertaking. We have over the past decades built up a huge inventory of complicated applications that we count on the mainframe to use on our whole, not just the computer, but the whole complex of data communication lines: high speed telephone lines and computer facilities connected in all different kinds of ways. These things have grown up more or less independently from each other, sometimes coordinated, most often not; sometimes carefully thought out and preanalyzed, and most often not; and I can confess to be a party to that myself, so I'm not just casting stones.

Our ideal for better way is clear enough. We characterize it as the top down approach. You decide what information you want, what you want it for, what value its going to have to you as a manager, then you build a system that provides you that information. Then you construct a facility to produce that information and you are off and running. When your management information need changes a little bit, you rethink that design, tinker with the physical plant, and you are up and running again. But what do we do with the mess we have in place? We all recognize the pains of dealing with the payroll system, personnel, forms, and all that. This ten years old plus . . .

The immediate difficulty I think we are going to face is not just identifying the problems, I think we can do that in an afternoon. They are right in our in-baskets everyday. The difficulty is going to be a continuing process that we will have to do repeatedly that goes something like this: Something that my teacher of this methodology called it, "evolutionary design," goes something like this. You look at the problem you have. You look forward into the future as to where you want to be down the road, your ideal of where you trying to get to. You figure out what you best conceive (the) next one or two steps is, not twenty-five steps, but what is the next two things I could do to get me on the road to my ideal. Then you do those two steps. And then you start over again. You look up again toward your ideal, you figure out the next two places your going to step, take the steps, and look up again.

I've tried that in my own experience and it works. I have a list of success stories that that kind of approach works. You cannot redesign the whole thing with a five or ten year implementation plan. But you can do the best thing you can do today. We can figure that out. We can figure out what a good next step looks like and we can carry that on and do it again tomorrow. And the new tomorrow will suggest maybe a different

third step than yesterday. Tomorrow's first step will probably be different than yesterday's third step, see what I mean. So the reason I point that out is to emphasize that I don't think this thing that we're asking ourselves to do called information systems management is something that we can sit down for two weeks of hard work and do and go away and say that we did it, we're done, history will love us. I think it is something that we'll have to carry as part of our continuing task. We'll have to continually do this thing called management of the information systems.

Well we haven't exactly been doing nothing and I would like to ask Beverly Reaume to describe what the activities have been. We have had a committee, you are mostly aware of, called the Information Systems Committee that has had representatives from all the departments. They have been active for awhile. Beverly, if you could describe the activities of that committee and how you see it relating to the council.

Governor: Bev, if you like you can come over here so Red can hear you.

Beverly Reaume, Chairperson, Informations Systems Committee: The Informations Systems Committee, better known as the ISC, was established in January 1984. And it was a result of a governor's policy statement at that point. The Committee is charged with representing the various departments in developing, reviewing, communicating recommendations for policies and procedures related to computing services and data and text processing. Not unlike some of the things that are set out for this committee to do. The membership requires partially exempt or exempt status and has tended to be either administrative services or technical services directors.

I'd say that the greatest single accomplishment of the ISC has been to provide a forum for the exchange of information among agencies. It has allowed us to do several cooperative ventures, as well as giving us a place to go when we had a problem, someone to call.

One of the first actions the committee did was to create the process that allowed us to begin to purchase microcomputers. I am not sure how many of you were concerned about microcomputers a few years ago, but we had a period when we were totally unable to buy any because of procedures and legal problems and all sorts of things. But through the ISC we did finally get through that and were able to start buying micros. We also developed several policy and procedure statements on items as varied as guidelines for agency data processing plans to the support level for mainframe software. Most recently, after considerable controversy, which John sort

of hinted at, we established an approved methodology for chargeback. This is for use of the mainframes' services.

We believe the ISC has done a lot of good, but at the same time it hasn't been as successful as we would have liked to have seen it. And it hasn't been able to solve some of the problems that John has already identified and will identify some more a little bit later. And I think if I had to look for the single reason why the ISC couldn't solve the problems, it is because we lacked the necessary clout to do so. Something we think that this committee will overcome.

The ISC is set up as an advisory committee to the Commissioner of Administration and had no mechanism to make anything happen across agencies. So it was always left to the Commissioner of Administration to carry the ball and whether that be before the Governor, before the cabinet, or before the Legislature. And of course as an advisory committee, it had the same failing, or same problem I should say, that advisory committees always have. Advisory committees never feel they are listened to sufficiently or that their advice is always sought.

But as I say, I think we have accomplished a lot and as you talk later on about the organizational structure for this committee, the ISC does have one recommendation in that regard and that is the ISC or a similar group be maintained to serve as a working group to this committee. A group that can maybe deal with some of the nitty gritty problems, but whatever that is, to identify the issues, determine what the alternatives are and then bring those alternatives back to this group to make a decision on.

About all I had to say is be happy to answer any questions if you had some.

Arthur Snowden, Administrative Director, Alaska Court System: One of the objectives of this committee hopefully would be to look into the data entry because one of the biggest problems I see is entry. A lot of information you get with a high error rate in entry is going to be useless to the managers that want to use it. And it is my hope that this committee will address that somewhat.

Governor: Well, I think we need to get a little bit more basic here for a minute. A computer is a tool. Information is what we're after. The question that I would have is, being a person that doesn't converse in computerese, is there has been millions of dollars worth of studies that have gone out around this state over the last twelve or fifteen years. Where are they? Whose got them? Has anybody looked through them to see

what's in there, to see if the data is any good, to see what agencies have them: the administrative agencies, the judicial system, the Legislature, the University of Alaska. Where is all that stuff? We paid a lot of money for it and is there an index to the information that was gotten together through those studies? Is there anyplace you can go to look things up? How does the index work? You run an agency, you are in an agency. What kind of information do you generate? Who gets it? How could the information be used, and by whom could it be used?

For instance, suppose we found out through our records of the budget that capital projects had been directed at a specific legislative district and you could find that out through the budget records or something like that. You could also find out through the Department of Labor what the unemployment figures are out there. What if you found a district where millions and millions and millions of dollars had been poured in through capital projects and the unemployment rate hadn't changed a bit over the last. . . What kind of policy implications would you come up with? What if you had, if Art had some figures there that indicated that contrary to what everybody thinks, that more crimes get committed when we're rich than when we're poor. What kind of implications has that got for Susan Humphrey-Barnett, that is running a correctional system. He might have some information and Susan might have some information, but what if they don't either one of them know about the other's.

That's the kind of stuff I'm talking about. I don't know a damn thing about the computers, but that's what I'm talking about when I mean coordination of information. Maybe since Red has seen fit to make me the Chairman of this I thought I'd deliver that, but anyway, pardon me for interrupting.

Boucher: Governor, can I add something?

Governor: I thought you might.

Boucher: What you said is what the hell this is all about. I don't know a damn thing about the inside of the computer and I could care less. I don't know what a systems analyst means and I'm not a programmer. But I damn well know that this is like this telephone I'm talking over. It can be a powerful information, in fact the most powerful tool we've got is what I'm talking to you with right now, the telephone. And I don't need to go to computer science school or be intimidated by all the jargon that's come out. I think that's exactly what you are talking about. In other words, it is available to other states. Other nations are working on it, and there are things you want to work on and you shouldn't have to fumble through a bunch of paper to find at least the answers that are out there, and I think we're alike. We've got the tools. It's like a

giant Webster's dictionary that is spread out all over the floor and we're trying to find the word "cat."

Now I'm not saying that it is simple. It is complicated and it is expensive, but I guess what we are trying to say is let's focus on the information that makes it possible for you as the Governor of the State and those men and women sitting around you that they don't have to check their brains out to the nearest computer. Then if you ask a question, the information ought to be there and if it isn't there, then find out who has got it. So, I guess really what we're trying to talk about out of this entire thing is not just the technology, but what you just said. You shouldn't have to - the information should be available at your fingertips and as your Chief of Staff will tell you, it doesn't require a powerful mainframe to get it. Although to store the amount of information the state needs ultimately does require that. But you said exactly what I would have said. That covers it.

Governor: Thank you, Red. I think basically what we're talking about here is what kind of information do we need; and what can we use around here. Then we can design a system to deliver it. I guess that is what is important.

Snowden: What's important, the information that I think we get a lot of the time is inaccurate and information that is not accurate is useless.

Governor: Well, then I guess we've got to think about some way of filtering it through so we should weed out some of the stuff that is no good or at least having some caveat there, you know, a little star by the stuff.

Judy Brady, Commissioner, Department of Natural Resources: Well, I was trying to decide something that would help me because I don't want to go through a whole . . . I've been through a couple of these studies myself, and in fact Red, if you'll remember when my name came up for appointment, before I was even appointed, you called me and said you wanted to talk about telecommunications. So even in the budgeting process it would help me, for instance, to know, I know what equipment we have and we have some big pieces of equipment in Department of Natural Resources, and what I'm asking now is what equipment do we have that we are not making full use of, and there could be a couple of reasons. Either we don't have the programmers, we don't have the auditors, so the equipment is out of date. And the second question is where are we equipment short? Where, number one, we need to perform, and what we would like to have and what we would like to have goes in the long range kind of stuff.

And the other thing we can provide to this meeting, and I would appreciate it from everybody else, is what kind of information can we give you. I can tell you some information that we can tell you about land status and you are going to be surprised about how much we can't tell you, for instance. And in some areas, you will be surprised about how much we can tell you. But because you don't know to ask the questions, I wouldn't even know that you were interested but maybe once you look at what we can tell you, then we would all see where the holes were for your purposes. And if I can see your list of what you can tell me, then I would know. Then I would say, "Oh, now I know where to go." It seems to me that would be a real good first step. I don't even know what other equipment people have or what we're capable of, what questions we're capable of answering individually.

Governor: You see, even if you didn't have any computers people wouldn't know. O.k.

Brady: Still wouldn't know.

Governor: I wouldn't know what you had or what Labor's got over there or anything else. I'm sure there is probably a list somewhere but I don't know where it is.

Brady: Is there a list?

Reaume: Well, there are some partial lists, there are certainly no complete ones that I am aware of.

Governor: Anyway John, that was kind of a rude intrusion there on the end of there but. . .

Andrews: Not at all. It was exactly to the point, I think. It is a very common mistake in approaching this kind of problem to begin with the computer. I only know of one way it works, and that is to start with the discussion, some kind of determination of what information you want. That is essentially a management decision process that you are fully prepared to make at this point.

You may not have the leisure you wish you had to make that kind of decision, but the only way to guarantee a successful track through this mine field of the technical underpinnings to give you that information you decide you need is for you to have as clear perception as possible as to what information you need and that is not an insignificant task. You have to think why you want it, what you are going to do with it, how frequently do you need it updated, how detailed a level of support information do you need. How sensitive is it in terms of privacy information or something like that. You have to work all that out, then you can turn to the technicians and say

go get me something that delivers me this kind of information in this time frame. And there are a lot of technicians around that know how to do that. But there is no technician in the world that is going to be able to read your mind about what you need or to read between the lines in what you said you needed.

I appreciate you putting us back on the track.

DISCUSSION ON CURRENT PROBLEMS

Governor: Thank you Beverly. John we've got a discussion of current problems on the agenda, I don't know if you want a partial go at it.

Andrews: Well, I would just as soon move on beyond that if it's all right with you and look forward to the first business meeting. All I wanted to do was make it clear the kinds of things I saw this council having an advantageous involvement with. We've all got plenty of ideas for what that first agenda might look like and the kind of problems we might want to address.

INTRODUCTION OF THE PEARSON REPORT

Governor: Red, the next item on the agenda is the introduction of the Pearson Report.

Boucher: I think that's great. May I just say something about the gentleman that is sitting before you there, Larry Pearson. It's an example of one of the finest brains in the country and it's right here in Alaska. For those of you who may not know him, the soon to be Dr. Larry Pearson was former editor of the Minneapolis Tribune. So he is used to working with various sources of information to make a daily newspaper. In other words, the deadline sets that they must have the information and they must sort through it.

He is one, like most of us in the management area or leadership area, is frustrated by the information overflow that comes before us. The paper that he has put out is probably one of the finest that has ever been written on the subject. I guess really what we're saying, there is on page 10 on Alaska in 1987. And while it's a difficult journey, as John has clearly stated, and sometimes costly, I think if we are to, the vision that you have, Governor Cowper, for the entrepreneurial . . . (End of Side One)

. . . is for sure you can put the polar bear on this one because this is made in Alaska and it will be a document that

will be read throughout the country. And I want to thank you for your confidence, as well as the confidence of both the Senate and the House, in putting it before you. I see nothing that is its equal as a beginning. I can't say enough. You will find Dr. Pearson, unlike myself, to be a very quiet, thoughtful person but one who has every bit the belief that I do that we in Alaska have a golden opportunity with what's already in place to enter the information age.

With that, I won't make any further comments. I'll just listen, sir. Thank you.

Governor: Dr. Pearson, did you, Larry did you want to come up here?

Larry Pearson, Assistant Professor, Department of Journalism and Public Communications, University of Alaska, Anchorage: I don't have anything formal to say. I'll just make two comments on what Red just said: one in the form of a minor correction and the other in the form of question. I was news editor of the Tribune rather than editor. I'm not sure I'm one of the finest brains in the country. But I hope you find the document I prepared useful. I'd like to come back and respond to questions about it later when you've had a opportunity to look at it.

I share with just about everybody who has spoken today, with everybody I believe, the belief that this is a great opportunity and you are exactly the people to take advantage of it. We are talking about information rather than the technology.

I know, because most of you responded to the questionnaire I distributed a few weeks ago, that very few of you have computers on your desk. Most of you have delegated responsibility for the actual day-to-day management and control of computer systems to other people and that's very natural. They are intimidating things and they are accompanied by jargon and they are not as friendly as people. You are all managers. You are all used to primarily dealing with people.

I know too from your responses that you spend about half of your time in communicating with people doing it face-to-face or by voice. There is very little electronic mail communication going on within state government, for example. The University may be doing more of that than the rest of the government. That's a little more awkward a way of dealing with each other, but it's a new possibility. There are many new possibilities.

key issue that faces you is how you want to get your information, are you getting information you need. Is there

information out there that it's possible to get if that need is identified. Computers are thinking tools. To the extent that look at computers, as top level managers, it's to see how they can help us think. How they can perhaps state problems for us in ways that we can see them more easily than we can without their help. They're an improvement on paper and pencil for doing that. They're an improvement on talking to other people for doing that. They can be very useful as tools for top level managers. But they can't be good tools for top level managers until top level managers get involved in setting the policies that make it possible for those computer systems, the programs that are written whatever the information to be inserted. That will allow you to think best in the way you are used to.

There are different ways of thinking with computers. Some people think visually. Some people work from outlines. We all have our own way of presenting materials whether it be speeches, written documents. We all do that differently. We can use computers differently as support tools for ourselves, too. That means that if technology is to serve us well, the lives of people like John Andrews are complicated somewhat. Because we are not looking for a single system, a single elegant solution for all of us. We are looking for lots of solutions for different ones of us who deal with different sorts of problems, different sorts of personnel situations, different sorts of information. It's a very complicated issue. It's certainly deserving of interest and time of the people such as yourselves.

Thank you.

ORGANIZATIONAL DISCUSSION

Governor: Any questions of Larry? I'm sure there will be in time. Thank you. It was a good report.

Snowden: An excellent report.

Governor: At this juncture, unless there is something, a subject that anybody would like to address, and I encourage that if you want, I was going to go directly into the organizational decisions that we've got to make and that will be the end of the meeting. I don't know, I thought we kind of started passing some stuff around and then we promptly went back to the agenda and that shut it off. I think there is a tendency to forget how important the organization of information and the access to it is in this business and you know, you kind of, in the absence of some system that works well for you, everybody kind of designs their own and while it works for you, it's better than nothing, it's not very efficient.

Well, let me do this. We need to select a vice-chairman. I am chairman here, I think perhaps that DOTPF representative Mr. Poe might be a willing victim. You can say no if you want to. Does anybody want to nominate him?

Snowden: I'll nominate him, Mr. Chairman.

Governor: Is there a second?

Andrews: I'll second it.

Governor: Are there any further nominations? Thank you for volunteering, Bob. You're the vice-chairman, by God.

There are rules of order that have to be adopted here. I thought that Robert's, I don't know if we're ever going to have to use any of them, but I thought we might adopt Robert's if you want to.

Snowden: So move.

Governor: O.k. Hearing no objections, the Robert's Rules of Order are adopted. I don't have a copy or anything.

"Discussion of alternates and agency staff." I'm just going to read this: "The law designates that the alternates will be deputy commissioners and in the case of the University the vice president." Says here, "The members of the TIC and their alternates all have heavy schedules. Therefore the bulk of the work will be done by staff both in the Governor's Office and in the agencies. Should we encourage the members to recruit their staff liaison from management. Recommendation: management staff." I guess what that means is that somebody has to do the real work and somebody has to go to the meetings and they are not necessarily the same. I guess the idea is to find somebody who, seriously, who is interested here to make sure that we all up to scratch.

"Staff" is the next one. Red, what are we supposed to do about staff?

Boucher: What are you supposed to do about staff?

Governor: Does the committee have a staff? I mean, oh, I see. O.k, I guess staff to the committee will be Joan Kasson who is in the back of the room there from OMB. She is the OMB person who is assigned to telecommunications. Jack Fargnoli also with OMB is here. Jack and Joan will be serving as staff to the committee. I am sorry that I didn't get that piece of paper.

Boucher: She is a very bright lady and has worked in the State of Texas in this area. She has an insight into it.

Governor: You see, all you have to do is volunteer and you get a compliment.

(Unknown): Governor, since the Information Systems Committee offered their assistance as a working group attached to this council, perhaps the connection could be through the staffing role as well.

Governor: Yeah, I think so. I think that we need to set another meeting at this meeting. I don't know what your schedules are. Bob you want to . . . ?

Bob Poe, Deputy Commissioner, Department of Transportation and Public Facilities: I just suggest that we contact the group in two weeks with proposed agenda and try to work out a meeting date through PROFS.

Governor: O.k. I think though, there ought to be some homework here. We don't want to repeat this meeting a second time around.

Poe: Right, I agree.

Governor: So, the agenda probably should be mailed out sometime in advance so that people can do a little bit of thinking.

Poe: Absolutely.

(Unknown): Preferably more than a day or two.

Poe: I was thinking in two weeks we ask for some suggestions and then we prepare the agenda from that memo.

Snowden: Governor, for the record, in as much the Chief Justice appointed me or my designee, I would like to state that my designee will be my Deputy Director, Stephanie Cole. So we have that on the record.

Governor: I think, without wanting to intrude on the agenda or anything at the next meeting, I think it might be worthwhile if the people in each agency would examine exactly what kind of information you do generate on a regular basis. Where does it go? What do you do with it? Who can use it as far as you know. It might surprise you the amount of information that your agency generates while you are asleep. That would be a useful thing to have available to us at the next meeting. If there is somewhere a record of the various studies, John you kind of invented the legislative system didn't you, that information system, was there a list of the studies that the Legislature put together?

Andrews: The only one I know of is a printed list of House Research Agency work. Interesting to bring that up. I went through their index of all the House Research activity that has taken place in the last however many years they have been in business and I came out with a stack of paper about that deep that looked interesting enough for me to find the time to read sometime that relates directly to my agency's problems. You might want to read through there. An example the kind of thing we're talking about, there's stuff around.

Governor: What about the state library system?

Poe: If I could, about four years ago the state library did look at a system called ASPIN. That is the acronym they dreamed up for it. Its approach was to essentially catalog all these studies that are done. You pay a hundred thousand dollars for some consultant study and it ends up in somebody's desk drawer and they leave three years later and nobody ever knows about it. And so the idea was to document that and to catalog it. The system never got much further than that. Other than naming the acronym. And talking about a little about what it could do. But that is a real resource we spent a lot of money on and we don't usually get much interdepartmental value from it.

Boucher: Governor?

Governor: Yes sir.

Boucher: One resource that I think would be absolutely valuable to you is the library system that we have existing within the state. These people have for some time been custodians of information and within the framework of the council we wanted to keep it at the highest level, but I think there is a lot to be learned in fact. They, in meetings with Professor Pearson and myself, have expressed a strong interest. So their business is cataloguing and coordinating information be it visual, audio or printed.

Governor: Shouldn't they be members of this council?

Boucher: Well you call the shots, sir. Initially the law, but definitely within the Department of Education, in that area you have some resources. People like Dr. Bramble and others who have been working on distant learning and cataloguing of information. And there's some bright minds in the University system particularly in Fairbanks, so I think there may be some troops out there that could well be used, sir. But I'll leave that up to you.

Governor: O.k. It just struck me that is what the library systems do. O.k. Well, just for starters I do think it would

be useful to get, see if you could put together the studies that have been generated in your own departments over the last, I don't know whatever useful time frame is: seven, eight, ten years. Depending on what kind of information it is. If it is an enormous hassle or. . . Art says if we can just get the studies we've had on this particular topic.

Snowden: And a list of information we collect by type. We do have collect reports by type, if we knew at least what we knew we're collecting it might be helpful.

Governor: And secondly, just try to assess what kind of information your department generates. That's kind of clearly basic information. What do you do with it, and how could it be used? I don't want commissioners to take five or six days to do this, but I do think you could probably assign a staff person to get this information. That would be a pretty good start I think.

Well Bob, do you or Joan want to . . .

Poe: We'll all get together, produce a memo, in a couple of weeks and get this thing rolling.

ADJOURNMENT

Governor: Has anybody have anything further to say or comment? If not, thank you for your time. We appreciate your attention. This is an important topic.

Thank you.

TELECOMMUNICATION INFORMATION COUNCIL

GOAL, OBJECTIVES AND WORK PLAN

Adopted February 2, 1988

GOAL

To develop and implement a cost-effective policy for managing the state's information and information technology resources in a comprehensive and coordinated manner so that state government may better serve the people of the state.

OBJECTIVE 1

Develop a statewide telecommunication/information management plan.

Task 1 Identify the state's information management resources (including human resources).

Task 2 Identify agency success factors as they relate to information management.

Task 3 Identify statewide and agency telecommunication/ information management shortcomings.

Task 4 Outline alternative solutions to meeting agency and statewide needs and solving shortcomings.

Task 5 Decide on solutions to be taken and set priorities for action.

Task 6 Monitor implementation, evaluate progress and make changes as necessary.

OBJECTIVE 2

Establish institutional arrangements for developing and implementing improved information management in Alaska.

Task 1 Identify opportunities for resource sharing and cooperative development of solutions.

Task 2 Define the roles of IRMEAC and the ISC in statewide information management.

Task 3 Obtain/assign resources to carry out/monitor the statewide plan.

OBJECTIVE 3

Establish information management policies and guidelines to implement the plan.

Task 1 Define at a statewide level the standards (requirements) that new telecommunication/information management systems should strive to address.

Task 2 Establish a policy and procedure for providing public access to state information systems.

TELECOMMUNICATION INFORMATION COUNCIL

February 2, 1988
1:30 p.m.
10th Floor Conference Room
State Office Building
Juneau

AGENDA

Call to Order

Decision Item: Establishment of Mini-Computer
Networks

TIC Goals and Objectives

Presentation: Mainframe Capacity

o *Division of Data Resources
Management, Department of
Administration*

Introduction to Executive Training

o *IBM*

Adjournment

END-USER-COMPUTING

POLICY DISCUSSION

Statement of Issue

Recently it has come to the Departments of Administrations' attention that several state agencies are exploring the merits of installing mini-computers to accomplish their more immediate needs in information processing. Informal discussions with our customers and local vendors indicate the potential acquisition of fifteen mid-range computer systems during this calendar year. These discussions have also indicated that in order to achieve maximum benefit of each of these computers, there will be the need to connect to the IRM data network. Unlike the micro-computer local area networks, these connections will have a large impact on both the IRM mainframes and data network. It appears that the majority of visible activity has been with IBM and Wang products. These vendors are offering test/demonstration periods where the vendor actually installs mini-computer systems for testing by the agency for a several month period with no obligation to purchase the equipment.

End-user computing provides the State a great potential in information processing. However, in order to achieve the maximum potential, it is imperative that agencies understand the implications of acquiring, operating and maintaining this type of equipment.

Need for Policy

Policies are required to set the direction of data network management, data sharing, application sharing, public access, and centralization or decentralization of applications. These policies should be implemented prior to acquisition of this type of equipment.



UNIVERSITY OF ALASKA - ~~FANNING~~

OFFICE OF
MANAGEMENT & BUDGET
DEC 22 1987

December 17, 1987

STRATEGIC PLANNING

Robert G. Poe
Vice Chairman
Telecommunication Information Council
c/o DOT/PF
P.O. Box Z
Juneau, AK 99811

Dear Mr. Poe:

As requested, here are comments about the draft goals and objectives for the Telecommunications Information Council (TIC), which you presented at the December 16 meeting.

1. The goal is right on. It should not be weakened by omitting the "implement" word. A policy not implemented is no policy at all.
2. Many of the objectives are steps in developing a statewide plan, which created some confusion when one objective was identified as creating a plan. I suggest categorizing objectives to overcome this confusion, yet still cover the steps required for a TIC work plan:
 - a. Objective 1: Develop a statewide telecommunication/information management plan (draft objective #8).

Task 1: Identify the state's information management resources (including human resources) (obj. #1).

Task 2: Identify agency success factors as they relate to information management (obj. #2).

Task 3: Identify statewide and agency telecommunication/information management shortcomings (obj. #3)

Task 4: Outline alternative solutions to meeting agency and statewide needs and solving shortcomings (new).

Task 5: Decide on solutions to be taken and set priorities for action (new/obj. #7).

Task 6: Monitor implementation, evaluate progress and make changes as necessary (per Con Dietz).

Robert G. Poe
December 17, 1987
Page 2

- b. Objective 2: Establish institutional arrangements for developing and implementing improved information management in Alaska (new).

Task 1: Identify opportunities for resource sharing and cooperative development of solutions (obj. #4).

Task 2: Define the roles of IRMEAC and the ISC in statewide information management (obj. #5).

Task 3: Obtain/assign resources required to carry out/monitor the statewide plan (per Amy Kyle).

- c. Objective 3: Establish information management policies and guidelines to implement the plan (new).

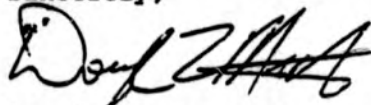
Task 1: Define at a statewide level the standards (requirements) that new telecommunication/information management systems should strive to address (obj. #6).

Task 2: Establish a policy and procedure for providing public access to state information systems (new).

Of course, the next step, upon TIC agreement of goals and objectives, is to define an action plan for achieving results.

Hope these comments are useful.

Sincerely,



Douglas L. Mutter

DLM:jlh
11H/035

cc: Donald O'Dowd, President, UA
Don Behrend, Provost, UA
Dave Hickok, Director, AEIDC
Conrad Dietz, Director, UACN
Joan Kasson, Policy Analyst, OMB

DRAFT GOAL AND OBJECTIVES

TELECOMMUNICATION INFORMATION COUNCIL

December 16, 1987

GOAL

To develop and implement a cost-effective policy for managing the state's information and information technology resources in a comprehensive and coordinated manner so that state government may better serve the people of the state.

OBJECTIVES

1. Identify the State's available information management resources (including human resources);
2. Identify Agency* Success Factors as they relate to information management;
3. Identify statewide and agency telecommunication/information management shortcomings;
4. Identify opportunities for resource sharing and cooperative development of solutions;
5. Define and coordinate the roles of IRMEAC and the ISC in statewide information management;

6. Define at a statewide level the standards (requirements) that new telecommunication/information management systems should strive to address;
7. Prioritize agency information management needs on a statewide level; and
8. Develop a statewide telecommunication/information management plan.

* The term "agency" includes executive branch departments, the legislature, the court system, and university organizations.

SERVICE CENTER CAPACITY REPORT

- A capacity study was conducted at the Juneau Service Center in August of 1987
- The study was verified by two independent sources
- The conclusion of the study showed:
 - An upgrade to the peripheral data storage devices will be needed in August of 1988
 - A larger computer system will be needed in calendar year 1989
- In lieu of a funding request in fiscal 89, a seven point program was devised by IRM to extend the life of the current computer systems. The plan was reported to the ISC and assigned to the Standards, Planning, Policy and Guidelines subcommittee of the ISC. The seven point program consists of:
 1. Build computer systems at the Juneau and Anchorage Service Centers that are compatible to allow transfer of workloads
 2. Tune the Juneau computer and user applications to take full advantage of software and hardware features available
 3. Perform a capacity study on the Anchorage Service Center computer for awareness of how much workload may be transferred
 4. Tune the Anchorage computer and user applications to take full advantage of software and hardware features available
 5. Move work from the Juneau Service Center to the Anchorage Service Center as Juneau becomes over loaded
 6. Review all agency processing needs for the next 18 months for input into the capacity planning effort
 7. Halt all new application development or enhancements at the service centers as the capacity limit is reached

Tasks 1, 3, and 6 have been completed and the results are:

- The systems are in a posture to allow workload transfer
- The capacity study of the Anchorage Center shows the computer running at 80% of capacity. Based on the high utilization of the Anchorage computer transfer of workloads should only be considered in an emergency
- The agencies have responded to a capacity needs survey. The projected growth by agencies in FY89 is +12%

Tasks 2 and 4 are under way. The Service Centers have tuned their computers to allow maximum work flow. The agencies have been contacted and work has begun on tuning their applications. The results to date have been positive.

Task 5 should be considered only in an emergency as the Anchorage computer capacity study indicates a transfer of substantial workloads would cause an overload.

Task 7 is the halting of all new development and should only be considered as a business decision and critical need.