

Office Memorandum

DEPARTMENT _____

TO : Robert Goff, Director
Governor's Task Force on
Waste and Mismanagement

DATE: December 15, 1977

FROM : Telecommunications Panel

PHONE: _____

SUBJECT: Recommendations

We have concluded our eight day study of the State Telecommunications functions. We have attempted to focus our attention on the three questions posed to us by the note dated November 18, 1977. These questions are:

1. What should the state be doing right now to prepare for a telecommunications future five years away?
2. What should the state's policy be on ownership of telephone systems?
3. Would the state save money or gain efficiency in implementing the LEAP recommendation concerning incorporating telecommunications functions left in other departments into a single agency?

We have grouped the recommendations into three categories:

Immediate - Those functions which should be implemented as soon as possible and which will provide background data for following recommendations.

Short-term - Those which should be included in the planning for the next budget.

Long-term - Those whose implementation will probably not be in the next budget, but which will require that planning begin as soon as possible.

In answering the three questions we have tried to keep in mind the items which we all agreed were essential to good communications management.

- Overall Planning
- Accurate data collection
- Systems and cost review
- User education
- Optimization of circuitry
- Allocation of costs

Attached are this panel's recommendations.

Immediate Recommendations

1. The Telecommunications Division should make arrangements to receive from each facility the monthly costs of the Local Service, Other charges and credits, Long Distance and WATS, number of calls if possible.

Why:

- a. Begin to find possible abuse areas
- b. Give immediate data base for future planning
- c. Show total state telecommunication cost
- d. The information received would, of course, be reviewed and compared against previous reports to spot developing trends and follow-up where necessary.

This function should be automated as soon as possible.

2. We do not feel at this time that there are any savings or efficiencies to be gained by incorporating the Office of Electronic Communications under the Department of Administration. The design, implementation and maintenance functions now being performed by the Office of Electronic Communications appear to be working to the satisfaction of users. The Telecommunications Division, however, should continue to take an active part in the requesting and planning of radio applications so that the proper communications solution is determined, i.e., does a telephone or radio solution best serve the state.

Short Range

1. Initiate study of electronic control in the metro area of outbound facilities, i.e., an active telecommunications controller.

Why:

- a. A possible savings of ten to fifteen percent of present WATS and Long Distance costs could be realized by computer control of outbound facilities. Computer control ensures maximum use of least costly facilities.
- b. A by product of computer control is automated data capture to facilitate network planning and accounting information for allocation purposes.
- c. Another by product is detailed reporting by user to identify potential abuse.
- d. Other possible benefits would include the possibility of out-state users accessing the device and having controlled access to WATS, metro area and other services. The device will also provide the necessary billing information for these calls.
- e. The device would enable the state to centralize WATS service thereby realizing economies of scale.

2. The Governor should strongly urge the departments and agencies to make use of Local Service and Long Distance tapes where available (such as Capitol Complex and other Centrex locations) which should be centrally data processed so that actual cost, call and station information is given to the lowest supervisory level.

Why:

- a. Only these individuals have the necessary information to detect Local Service billing errors and curb calling abuse in their own operational area.
 - b. This would eliminate the need at those locations to manually record toll calls.
 - c. Charges common to the entire system can be factored into the station charges, giving user units a more complete and accurate picture of their Local Service charges. These should be telephone charges and should not include any administrative overhead charges. If administrative charges must be made, they should be separately identified.
3. Control must continue to be exercised over the other changes and credits area, i.e. moves, new installs, and removals.

Why:

- a. Because of multi-tier pricing (grouping several orders limits the number of service order charges). The grouping function should be performed by the Telecommunications Division.
 - b. To ensure accuracy of orders. This function should be performed by the Telecommunications Coordinator position in the requesting agency. Telecommunications should only be involved in the planning and design of changes of major significance.
 - c. To ensure correct decision making, Telecommunications Coordinators must be provided with on-going training.
4. Develop guidelines for timely review of existing telephone (PBX/KEY) systems.

Why:

- a. To anticipate growth and to assure expansion capability until next biennium.
- b. To evaluate requirements of the systems as they relate to user needs and compatibility with existing or proposed networks and systems.

This process will identify systems with a potential for change. The next step will be to identify viable alternatives to include inter-connect purchase/lease and serving telephone company proposals.

We feel the time is now ripe to consider interconnect services. These vendors offer a wide range of state-of-the-art, quality products at competitive prices.

The question of interconnect is multi-faceted and should be evaluated on an individual system/facility basis. Some of the major interconnect considerations are:

- maintenance facilities of vendor?
- to be maintained by state?
- vendor financially stable?
- will vendor be around through life of system?
- compatibility with serving telephone company facilities?
- experience of others with same equipment?

These are major points to be considered over and above the normal concerns of features, costs, and growth potential.

5. Consideration should be given to developing, purchasing or leasing a network analysis program.

Why:

- a. As usage and/or switching on the State Telephone Network grows, configuration and cost control will become increasingly important and complex. Manual methods will not be adequate.
- b. The program should also be used to properly configure the WATS service.

6. Greater control and review should be exercised over circuit/traffic loading on all State Data Networks.

Why:

- a. This would identify potential areas for sharing lines among the various systems (also possible alternate use of voice services).
- b. Excess service such as too many circuits or not enough usage on a given circuit could be eliminated.

The analysis package discussed in number five, above, could be used for this purpose.

- c. This would also allow the Telecommunications Division to anticipate the need for additional circuits and/or upgrading of circuit speeds.
7. Consideration should be given to studying the feasibility of the Office of Electronic Communications assuming maintenance responsibility for various state-owned Telecommunications equipment such as modems, terminals, PBX's, CCTV and CATV systems and security equipment.

Why:

- a. To take advantage of existing expertise and facilities.
- b. Eliminate duplication of effort.

Long Range Recommendations

1. The state ought to initiate a long-range study of the feasibility of a state-owned microwave system. This seems especially appropriate for the state because:
 - a. It is a single geographical area.
 - b. Radio towers already exist for possible antenna placement.
 - c. Technical expertise appears to exist in state agencies.
 - d. The trend over the past decade has been a steady increase in the cost of private lines; nothing indicates that this trend will diminish.
 - e. Such a network would be capable of accommodating all manner of electronic signals, i.e., CATV, STN, Data, Radio, CCTV, WATS, DDD, FAX, Electronic Mail, Telemetry.

Even though the implementation may be a long range consideration, the study process should begin as soon as possible.

2. Satellite communications appears to be an extremely long-range study prospect because of the relatively small geographic area of the state and the distance insensitive nature of satellite communications. That is not to say that a satellite system may not become feasible in the future or that the lease of individual satellite circuits may not be feasible right now.
3. Electronic Mail seems to be an approaching reality. The state must be in position to take advantage of this type of service including the integration of word processing.
4. Recognizing that computer control of many applications from highway scales to building security is in the future, the telecommunications function must become increasingly involved in the planning in these diverse areas.

The above recommendations speak to greater or more effective control of state telecommunications expenses and requirements. In order to facilitate these recommendations it might be advantageous to establish a permanent communication planning committee, including personnel from Departments of Administration and Transportation as well as representatives from the public sector and coordinated within the State Planning Agency.

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