P-999/CI-93-1176 ORDER APPROVING SHORT-TERM AND INTERMEDIATE INFRASTRUCTURE RECOMMENDATIONS AS MODIFIED AND ESTABLISHING A COMMENT PERIOD

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Don Storm	Chair
Tom Burton	Commissioner
Marshall Johnson	Commissioner
Cynthia A. Kitlinski	Commissioner
Dee Knaak	Commissioner

In the Matter of a Commission Initiated Investigation to Establish Requirements for the Telecommunications Infrastructure in Minnesota

ISSUE DATE: May 19, 1994

DOCKET NO. P-999/CI-93-1176

ORDER APPROVING SHORT-TERM AND INTERMEDIATE INFRASTRUCTURE RECOMMENDATIONS AS MODIFIED AND ESTABLISHING A COMMENT PERIOD

PROCEDURAL HISTORY

I. Proceedings to Date

In late 1990, the Commission requested that a study group be formed to provide the Commission with information on Minnesota's telecommunications infrastructure and what is required to position Minnesota for the future.

Periodically since its formation, the Minnesota Telecommunications Study Group (MTSG) has reported to the Commission regarding the group's activities and progress.

On November 19, 1993, the study group filed its Final Report, including recommendations, with the Commission.

On December 1, 1993, the Commission issued its ORDER INITIATING AN INVESTIGATION AND ESTABLISHING COMMENT PERIOD. In that Order, the Commission initiated a comment and reply process regarding the MTSG's Final Report and recommendations, particularly with reference to whether or not the Commission should order implementation of the specific short term, intermediate and long term recommendations contained in the Final Report.

On January 13, 1994, Direct Dialogue and the Association of Minnesota Telephone Utilities (AMTU) filed comments.

On January 14, 1994, the following parties filed comments: McCaw Cellular Communications, Inc. (McCaw), GTE Minnesota (GTE), MCI Telecommunications Corporation (MCI), Enhanced Telemanagement Inc. (ETI), the Minnesota Department of Public Service (the Department), and the Residential Utilities Division of the Office of the Attorney General (RUD-OAG).

On January 18, 1994, the following parties filed comments: MFS Communications Co., Inc. (MFS), Vista Telephone (Vista), the Minnesota Business Utility Users Council (MBUUC), AT&T Communications of the Midwest (AT&T), and the Minneapolis Telecommunications Network (MTN).

On January 19, 1994, comments were filed by Sherburne County Rural Telephone Company (SCRTC) and the Minnesota Cable Communications Association (MCCA).

On January 27, 1994, the Minnesota Department of Administration filed comments.

On January 31, 1994, Norwest Corporation and Norwest Technical Service filed comments.

On February 7, 1994 Minnesota Direct Dialogue Advisory Board filed comments and GTE filed reply comments.

On February 8, 1994, the Minnesota Chapter of Computer Professionals for Social Responsibility filed comments.

On February 24, 1994, the DOA filed a revision to its January 27, 1994 comments.

On May 5, 1994, the Commission met to consider this matter.

FINDINGS AND CONCLUSIONS

II. Introduction

The Commission renews its appreciation for the contributions of the Minnesota Telecommunications Study Group (MTSG). The value of that work has now been validated, expanded and enhanced by the thoughtful comments of many parties.

The MTSG has made short term recommendations regarding digital switching, digital interexchange facilities, one-party local exchange service, touch-tone service, first generation custom calling features, and inter-LATA equal access. The MTSG also made intermediate recommendations regarding SS7 trunk signaling for call setup, and CLASS services. Finally, the MTSG made long term recommendations regarding broadband services.

At this point, the Commission is prepared to proceed to adopt several of the MTSG's recommendations, modify others, and initiate further steps to prepare for the development of an appropriate and progressive telecommunications infrastructure in Minnesota.

III. Summary of Commission Action

With respect to the MTSG's short term recommendations, the Commission will adopt recommendations regarding first generation custom calling features and InterLATA equal access as modified, decline to adopt the Staff recommendation regarding two-party service at this time pending the outcome of a Commission initiated an investigation into that subject[1], and adopt the remaining short term recommendations as offered.

As to the intermediate term recommendations, the Commission will adopt the intermediate term

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[1] In the Matter of a Commission Initiated Investigation into the Public Interest Implications of Maintaining or Eliminating Two-Party Service in Minnesota, Docket No. P-999/CI-94-430, ORDER INITIATING INVESTIGATION (May 12, 1994).

recommendation regarding SS7 trunk signaling for call setup, as fully set forth in Ordering Paragraph 9. With respect to the CLASS services intermediate term recommendation, the Commission will temporarily defer consideration of that recommendation pending receipt of updated information from Staff regarding the potential impact of recent legislation regarding extended area service in Minnesota.

Finally, the Commission will adopt the MTSG's long term recommendations regarding broadband services, as modified herein.

IV. Discussion of the Modified or Deferred Recommendations

A. Short Term Measures

1. One-Party Service

The MTSG recommended that the Commission require all providers of local exchange service to offer single party lines to customers upon request by January 1, 1995. The Commission will adopt this recommendation. The Minnesota legislature has already indicated some policy direction to advance the universal use of one-party service. In 1991 the Minnesota Legislature enacted legislation to eliminate multi-party service to Minnesota telephone subscribers. Minn. Stat. § 237.068 (1992). The legislation required all local exchange companies offering or providing multi-party service to substitute two-party or one-party service by October 31, 1993.

The Commission believes that it may be better simply to establish one-party service as standard service in Minnesota by eliminating two-party service. However, to evaluate the public interest and cost implications of eliminating two-party service in Minnesota, the Commission has initiated an investigation of the subject. See Docket No. P-999/CI-94-430.

2. First Generation Custom Calling Services

First generation custom calling services are such features as call waiting, call forwarding, call waiting control, and three-way calling. The MTSG recommended that the Commission require all providers of local exchange service to offer these custom calling features to all subscribers by January 1, 1998 and to either file a tariff for the provision of those services or request an extension or waiver by July 1, 1997.

Custom calling services have been available to the vast majority of Minnesota customers for years. Custom calling services are already available to all but three percent of access lines in Minnesota. The Commission finds that leaving the remaining three percent underserved in this manner for the length of time proposed by the MTSG is unreasonable. The MTSG recommendation would not alter or speed up the upgrading of these services beyond status quo industry plans.

To advance the timely introduction of these services for the remaining three percent, the Commission will direct the affected companies to file plans by January 1, 1995 to offer these services by two alternative dates: January 1, 1996 and January 1, 1997.

3. InterLATA Equal Access

Access arrangements offered by local exchange companies (LECs) that make the local network available to competing interexchange carriers (IXCs) for originating and terminating toll calls

constitute a service system known as "equal access". From the customer's viewpoint, an "equal access" service system gives the customer "equal access" to the available IXCs and enables the customer to choose between competing IXCs by presubscription or choice of 1+ carrier. An interLATA equal access system makes end users and IXCs accessible to each other the same way end users and the dominant toll carrier (AT&T) were accessible to each other.

The MTSG recommended that the Commission require all subscribers to have access to multiple long distance providers on a presubscribed (1+) basis for interLATA calls by January 1, 1998. The MTSG also suggested that all providers of basic local service be required to submit a plan to the Commission for providing interLATA equal access or request an extension or waiver by January 1, 1996.

The Commission will also speed up the MTSG's recommended timetable for statewide interLATA equal access. It has been many years since federal and state regulatory authorities have determined that competition between IXCs for end user traffic will benefit end users, competition which can only occur when end users have a choice of IXCs to carry their toll traffic.

Accordingly, the Commission will move up the deadline for LECs to provide interLATA equal access implementation plans. Those plans will be due October 1, 1994. In addition, the companies will be required to address the feasibility of providing interLATA equal access by January 1, 1997, i.e. a year earlier than the MTSG had recommended.

B. Intermediate Term Measures

1. CLASS Services in EAS Calling Areas

Custom Local Calling Area Signalling Services (CLASS) are second generation calling features such as automatic call back, calling number delivery, caller identification, and selective call rejection.

The MTSG recommendation related to implementation of CLASS services in extended area service (EAS) markets. The recommendation may well have merit. However, since the Minnesota legislature has recently passed significant legislation affecting the implementation of EAS, the Commission will defer consideration of this recommendation until the ramifications of the new legislation for this matter become clear. During this period, Commission Staff will monitor CLASS acceptance rates in large and small exchanges.

C. Long Term Measures

1. Broadband Infrastructure

The MTSG's long term recommendations related primarily to the development of a *broadband infrastructure*[2] in the State of Minnesota. As to the deployment of that infrastructure, the MTSG

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[2] *The term broadband is not defined in terms of technology, but rather in terms of transmission speed. Broadband represents the category of transmission rates necessary to support high definitional television and high definition interactive video, enhanced imaging, multimedia services, supercomputer interconnection and Computer Aided Design/Manufacturing*

indicated that it could support either of two options:[3]

Option 1: Market Demand Scenario

Under this scenario, the basic assumption is that the broadband network can be deployed most efficiently if the decisions to build respond to market demand rather than mandating ubiquitous deployment by a date certain. The MTSG stated that this option should be used if the Commission gave greatest weight to economic efficiency and governmental budgetary constraints.

Option 2: Industry/Public Joint Action Scenario

This deployment scenario would require an agreement on the part of the industry and policy makers to deploy, by date certain, a broadband infrastructure ubiquitously to public and social institutions (schools, libraries, hospitals, government offices, and universities) with residual deployment to residence and business subscribers based upon the Market Demand/Deployment Scenario. Such a scenario would be indicated, according to the MTSG, if policy makers felt that societal benefits justified the advancement of broadband deployment sooner than would be accomplished by the second scenario.

The Commission finds that the record is insufficiently developed to determine the desirable level of public involvement in the development of broadband and broadband-like services. Moreover, at this point in the development of the technologies used to deliver broadband[4], the Commission is hesitant to make a special commitment to the deployment of any particular broadband delivery technology. In this period of fast-paced technological development within the telecommunications industry, additional broadband delivery technologies may soon appear that are more appropriate, beneficial, and viable.

2. Services Tracking Mechanism

The MTSG recommended that, regardless of what the Commission decided with respect to its involvement in promoting broadband deployment, it should establish a tracking mechanism to monitor the advancement of the telecommunications infrastructure over time.

The idea of tracking the advance of telecommunications infrastructure throughout the state is a good one. The purpose of such tracking would be to help assess the deployment of relevant

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applications. A broadband infrastructure would consist of distribution/loop plant, switching, interoffice facilities, signalling systems, and customer premises equipment. The MTSG Report contains lengthy descriptions of broadband infrastructure, potential service offerings, and its concomitant costs. See Report, pages 39-50.

[3] A third option, the Build It and They Will Come Scenario was also discussed in the MTSG Report. The MTSG did not recommend this option as its costs would far outweigh the societal benefits or the ability of providers to recover their investment.

[4] Note that broadband is not a technology itself, but a transmission speed. The transmission speed referred to as broadband can be achieved and broadband transmission services can be delivered to an end-user using several different distribution technologies, e.g. copper, fiber optics, and a hybrid using fiber, coaxial cable, and copper. See MTSG Report at page 41.

infrastructure, market demand, and geographic coverage.
Because advanced telecommunications services may be offered by many different entities using different delivery technologies, including fiber, wireless, satellite and cable, the tracking mechanism will have to be flexible enough to track relevant services regardless of the provider.

V. Looking Ahead

Much work remains to be done on issues raised in the course of preparing the MTSG's Report. The Commission believes that it is time to find appropriate ways to proceed.

To begin this process, the Commission will solicit comments. The process will serve two purposes. The first purpose is to develop the structure for the tracking mechanism discussed in this Order, how to ensure that information from existing and future providers of broadband is supplied by all providers, and the process for reporting to the Commission. The second and more general purpose is to establish the direction, scope, and means for securing broad participation in the next stage of this proceeding.

First, the parties should comment on the structure of the tracking mechanism discussed previously in this Order. Commenters should address how to ensure that information from existing and future providers of broadband is supplied by all providers, the process for reporting to the Commission, and any other consideration relevant to establishing an effective tracking mechanism.

Second, interested parties should comment freely but with some specificity regarding the range issues the commenters would request receive further examination in this docket.[5] In addition, they should propose a mechanism, timetable, and agenda for such an examination, including ways to secure relevant participation in these further proceedings.

As general direction for the commenters, the Commission clarifies that it is committed to an inclusive, broad-based approach to examining the future of telecommunications in Minnesota. In addition, the Commission is favorably disposed to the general proposition enunciated by the MTSG that as a new type of market structure develops, regulation will need to change and adapt in order to insure that customers receive the same quality of service at reasonable prices and provide a fair competitive opportunity for regulated entities.

ORDER

Short Term Measures

1. By January 1, 1998, all local exchange companies (LECs) shall serve their exchanges via digital or electronic analog switches.

2. By January 1, 1995, all LECs shall submit a plan to the Commission regarding full digital

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[5] As exemplary of the wide range of proposals that it invites, see the issues raised by Direct Dialogue in its comments filed January 13, 1994. In referring to these issues, the Commission is not predetermining what issues it will ultimately find appropriate for further examination in this proceeding.

switch deployment by January 1, 1998 or request an extension or waiver of this requirement at that time.

3. By January 1, 1996, all LECs shall submit a plan for providing digital interexchange facilities by January 1, 1998 or request an extension or waiver.

4. By January 1, 1995, all LECs shall offer one-party service to customers upon customer request.

   By July, 1, 1994, all LECs shall submit a plan for meeting this requirement or request an extension or waiver.

5. The issue of eliminating two-party service and instituting one-party service as standard service in Minnesota is hereby deferred in light of the Commission's investigation of two-party service in Docket No. P-999/CI-94-430.

6. By January 1, 1995, all LECs shall equip all access lines with touchtone and provide touchtone to all subscribers without separate charge.

   By July 1, 1994 all LECs shall file a plan with the Commission to eliminate the separate charge for touchtone or request an extension or waiver or request an extension or waiver.

7. By January 1, 1995, all LECs shall

   a) file a plan with the Commission for the provision of first generation custom calling services by two alternative dates (January 1, 1996 and January 1, 1997) or request a waiver or extension of this requirement; and

   b) indicate what problems they would have with being required to offer first generation custom calling services to their subscribers by the two alternative dates: January 1, 1996 and January 1, 1997.

8. By October 1, 1994, all LECs shall file with the Commission a plan for providing interLATA equal access by January 1, 1997.

Intermediate Term Measures

9. By January 1, 2000, all LECs shall deploy ubiquitously throughout the State SS7 trunk signalling for call set up. By January 1, 1998, all LECs shall file plans for SS7 deployment with the Commission or request an extension or waiver.

10. The issue involving CLASS services and EAS is hereby deferred until more information is available regarding recent EAS legislation and its potential implications for this issue.

11. LECs shall provide their customers with information on ISDN features and availability.

Long Term Development Issues

12. The Commission determines that at this time it will leave further ISDN deployment and penetration in the State and the deployment and development of the wireless communications infrastructure to the market demand for the service.

13. The Commission declines to make a determination at this time regarding the various scenarios described in the MTSG Report related to broadband deployment within the State.

14. The Commission hereby initiates a comment and reply process:

    A. Within 30 days of this Order, interested parties are encouraged to file comments describing a mechanism for tracking advances in the development of telecommunications infrastructure, including fiber optics, cable, wireless, satellite and other relevant technologies. Specific topics related to the tracking mechanism are:

        1. the appropriate information to be included in a tracking mechanism;

        2. the appropriate structure for the tracking mechanism;

        3. how to ensure that all existing and future providers of broadband will supply information for the tracking mechanism;

        4. the process for reporting to the Commission; and

        5. any other tracker-related issues the parties deem relevant.

    B. In addition, commenting parties are invited to propose procedural and substantive elements such as the following:

        1. infrastructure development issues that warrant further examination and mechanisms and scenarios for proceeding with these matters; and

        2. the identification of and strategy for involving additional relevant participants in the process.

15. After the deadline for filing initial comments pursuant to Ordering Paragraph 14, parties shall have 15 days to file reply comments.

16. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

(S E A L)