

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Application) Application No. C-1140 / PI-11  
of the Nebraska Public Service )  
Commission on its own motion to )  
conduct an investigation into ) DISMISSED  
the expansion of toll-route di- )  
versity in Nebraska. ) Entered: October 31, 1995

BY THE COMMISSION

On January 9, 1995, the Nebraska Public Service Commission opened Application No. C-1140, (cross referenced as PI-11), to investigate toll-route diversity in Nebraska. Application No. C-1140 identified several issues and requested that all interested parties submit responses to the issues raised by February 10, 1995. The order was sent by first-class mail to all local exchange carriers and interexchange carriers certificated to operate in Nebraska. On January 31, 1995, upon a request filed by the Nebraska Telephone Association, the Commission granted an extension of time to submit answers to the docket to March 1, 1995.

O P I N I O N   A N D   F I N D I N G S

Several fiber-optic cable cuts occurred in Nebraska during the later part of 1994 which left many people and businesses in Nebraska without telephone service. It was the Commission's opinion that the substantial financial effects on businesses and the lack of safety for residential subscribers warranted an investigation.

The Commission has long held the position that the expansion of toll-route diversity is important for Nebraskans. In Applications C-931 and C-992, this Commission identified toll-route diversity as an option in which telephone companies could distribute property tax windfall dollars collected due to changes that were made in Nebraska's tax laws in 1989.

When a series of cable cuts occurred in 1994, the Commission opened this docket to determine whether the present system of diversity in Nebraska is adequate. As a part of its investigation, the Commission requested comments be submitted by both local telecommunications carriers, as well as interexchange carriers on the current status of toll-route diversity, as well as projected upgrades.

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The following companies, organizations and individuals responded to this investigation:

American Telecommunications Enterprise, Inc.  
American Teletronics  
Amer-I-Net Services Corp.  
Ameritel  
AT&T  
Blue Valley Telephone Company  
Budget Call Long Distance, Inc.  
Cable & Wireless, Inc.  
CGI Long Distance Services  
City of Gothenburg  
Columbus Police Department  
Corporate Telemanagement Group  
Curtis Telephone Company  
Dawson County Sheriff  
Eastern Ambulance Service, Inc.  
Elsie Mutual Telephone Co.  
Executone  
Firstel  
Frontier Communications International, Inc.  
Golden West Telecommunications Cooperative, Inc.  
GTE  
Hamilton Telephone Company  
Keystone-Arthur Telephone Company  
LDDS Communications, Inc.  
Lincoln Telephone  
MCI Telecommunications Corp.  
MFS Intelenet of Nebraska, Inc.  
Nebraska Telephone Association  
Nedelco, Inc.  
Operator Service Company  
Peetz Cooperative Telephone Company  
Pierce Telephone Company, Inc.  
Mr. Bill Podraza, City Manager  
Sprint  
SP Telecom  
Southeast Nebraska Telephone Company  
Teleport Communications Group  
TCG Omaha  
United States Digital Network  
United Teleservices, Inc.  
US West  
Western Tele-Communications, Inc.  
WilTel  
Mrs. Dorothy Young

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After consideration of the responses, the statutes and rules, the Commission is of the opinion and finds:

The local exchange carriers in Nebraska are aware that providing diverse toll routes throughout the state is fundamental. Due to the public's reliance on 911 and other safety services, the carriers acknowledged that a reliable network must be provided for the future.

In its comments, US West Communications, Inc. stated it has established diverse routes between the Omaha tandem and all Omaha metro wire centers. Outside the Omaha area, US West has begun to place diverse toll route between its tandem locations and other large communities within the state. The company plans to invest capital to avoid complete outages, like those which occurred in 1994. US West stated its goal is to provide complete diversity across the state within the next five to six years. The company also identified it is working with GTE for diverse routes to Columbus and Kearney and with United Telephone for routes to Benkelman and Wauneta.

Sprint indicated that it is in the process of deploying Synchronous Optical Network (SONET) in the state of Nebraska which will provide full restoration of a network failure in 40 milliseconds. Further, the company has restoration plans that will restore more traffic than the 50% that is currently built into the network.

AT&T stated it has doubled its restoration capacity in Nebraska over the past thirty-six months. Two Disaster Recovery Protection circuits (DPRs) and the Fast Restoration Access system (FASTAR) are in place and affect AT&T services provided in the Grand Island, Omaha and Lincoln exchanges. Additional DRPs may be offered in Nebraska in the future. Currently, AT&T can restore 80% of its network in Nebraska in less than thirty minutes. In 1996, AT&T plans to trial new technology called Next Generation Light Guide Network (NGLN) to provide even greater capability to recover from cable cuts in Nebraska.

Teleport Communications Group (TCG) expressed that it provides high network reliability by routing fibers diversely and by deploying highly reliable equipment. In Omaha, TCG has deployed a 70 route-mile, end-to-end fiber optic network and plans for expansion are underway. Twenty-four hour, seven day per week network surveillance and diagnostic testing occur at the Omaha facility and from the national Network Monitoring Center in New York.

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Hamilton Telephone Company and Nedelco explained they offer fiber routes for all toll traffic by using a fiber ring configuration which was developed several years ago. In 1988, two self-healing rings were deployed, connecting eight of Hamilton's nine exchanges. Long range plans call to upgrade the last exchange, Stockham, to the same level of diversity. Hamilton has also developed two routes to the LATA tandem (Lincoln) and in 1994, placed additional fiber facilities to Grand Island, providing diversity of routing for Hamilton customers, including the Nebraska Relay Service.

Pierce Telephone Company responded that it installed toll route diversity in the Pierce and Hoskins exchanges in 1992. Since that time, Pierce Telephone has not experienced a cut fiber cable or a toll outage.

Lincoln Telephone stated it has four fiber rings in the northwest, southwest, northeast and east regions of its service territory that provide toll route diversity. The four rings ensure that all major switching offices are protected by a redundant system. All rings are connected with the main switch in Lincoln where traffic can be monitored and rerouted instantly. Within the city of Lincoln, alternate fiber optic routes have been installed to provide redundancy. In downtown Lincoln, an 88 square block ring protects the needs of businesses, government and educational institutions.

MCI indicates that it has accelerated the deployment of SONET in Nebraska from east to west, primarily along the route of the interstate highway. A second SONET fiber route is under construction from Omaha to Lincoln, then south to Kansas City. All Omaha exchanges have diverse routing from tandem and end offices to the local MCI switch site. The installation of diverse routing for Lincoln is under construction and should be completed by the end of 1995. MCI also plans to lease extra diverse capacity from other carriers for the Grand Island LATA in the near future.

WilTel responded that it does not have any toll route diversity in Nebraska; however, it participates in a mutual agreement with MCI and INS (Iowa Network Service) to accomplish diversity in Nebraska. If a fiber cut occurs within the state, WilTel calls will be routed through Pleasant Hill, Iowa via INS or through Salt Lake City, Utah and Chicago, Illinois via MCI.

GTE stated it is working to partner with other LEC's to accomplish toll-route diversity. Currently, the company has no exchanges with toll traffic being diversely routed. One exchange has two fiber routes; however, one route carries private line traffic only. The company has no specific plans to upgrade its facilities on a state-wide basis.

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The Curtis Telephone Company has promoted toll route diversity in cooperation with the Cambridge Telephone Company and US West. The companies have deployed a diverse toll route to the point-of-presence (POP) in Grand Island. The company has fiber optic routes and also has one route that is SONET equipped.

Overall, the comments indicated that the local exchange and interexchange carriers are working to provide toll route diversity across the state through immediate and long-term construction projects. Since it will be some time until toll route diversity is available statewide, the Commission first urges the carriers to promote public awareness of the seriousness of damaging a toll route cable. Second, the public must be continually reminded and made aware to Call Before Your Dig (CBYD). Campaigns to heighten the importance of this call should be amplified.

Lastly, readily identifiable warning signs must be maintained by the companies showing the existence of cable. Signs that are weathered should be replaced so that company names and telephone numbers can be read. Additionally, vegetation must be removed from markers on a regular basis in order to sustain visibility.

This docket was opened as the Commission had grave concerns regarding the public's safety due to the lack of toll route diversity across Nebraska. Additionally, the devastating effects that fiber-optic cable cuts have had on businesses cannot be overlooked. The Commission believes that the carriers are cognizant of the importance of toll route diversity in Nebraska and the comments clearly indicate that construction projects are underway to remedy the current problem. As it may take several years for the construction to be completed on a statewide basis, this Commission expects the carriers to implement the improvements described herein.

#### O R D E R

IT IS THEREFORE ORDERED by the Nebraska Public Service Commission Application C-1140 / PI-11 is hereby dismissed.

IT IS FURTHER ORDERED that all telecommunication providers regularly apprise the Nebraska Public Service Commission of the status of its construction projects regarding toll route diversity within the state.

IT IS FURTHER ORDERED that all telecommunication providers properly maintain and upgrade, as necessary, all warning signs identifying buried cable.

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IT IS FINALLY ORDERED that all telecommunications providers promote public awareness of the severity of cable cuts and of the importance to call before digging.

MADE AND ENTERED at Lincoln, Nebraska this 31st day of October, 1995.

COMMISSIONERS CONCURRING:



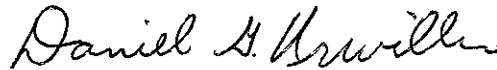
//s//Rod Johnson

//s//Frank E. Landis

//s//James F. Munnelly

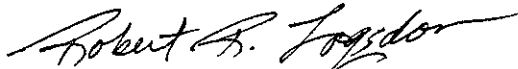
//s//Daniel G. Urwiller

NEBRASKA PUBLIC SERVICE COMMISSION



Chairman

ATTEST:



Executive Director