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BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Investigation of Area Code Relief Issues and Options for the
414 Area Code

05-TI-181

**FINDINGS OF FACT AND ORDER APPROVING A PLAN TO PROVIDE
AREA CODE RELIEF FOR THE 414 AREA CODE**

This proceeding was opened to address the introduction of another area code in that portion of eastern Wisconsin now served by the 414 area code.¹ Due to the growth in the number of access lines and new telecommunications providers, available telephone numbers in the 414 area are expected to exhaust in the first quarter of 2000.²

In 1996, the Commission investigated the need for area code relief in the then existing 414 area code. That proceeding resulted in a decision to split the old 414 area code into two parts, with one of the parts receiving the new area code (920). Although the telecommunications industry had forecast that the post-split 414 area code would have a life of eight years following the area code split that was completed in 1997, the growth of demand for numbers has been

¹ In the summer of 1998, a jeopardy condition was declared for the 414 area code because it was expected to exhaust in the first quarter of 1999 unless steps were implemented to provide area code relief. This resulted in a rationing of numbers which extended the exhaust date.

² Telephone numbers within an area code are a finite quantity. Telephone numbers in the United States are composed of a 3-digit area code, a 3-digit central office code, and a 4-digit line number. This numbering format is specified by the North American Numbering Plan. For example, for the telephone number 414-555-9999, the area code is 414, the central office code is 555, and the line code is 9999. Area codes are more formally called "numbering plan area" codes or NPA codes. Central office codes are referred to as NXX codes. The 414 area code has 792 assignable central office or NXX codes. Up to 10,000 line codes can be assigned in an NXX, although when a central office code reaches 80-90 percent of capacity, a new central office code prefix is implemented.

much greater than anticipated.³ To ensure that telephone numbers remain available in this area, action must be taken to introduce another area code.

The need for another new area code in the 414 area is prompted by the growth of telecommunications competition as well as by demands for new telecommunications services and telephone numbers. The increasing appearance of new service providers⁴ and the growing use by the public of wireless telephones, pagers, facsimile machines, and modems have consumed additional telephone numbers.⁵

Three options were considered in this docket: an all-service overlay (a new area code, in addition to 414, would be used throughout the current 414 geographical area), a two-way geographic split (the current 414 area code would be split into two parts; in one part, the area code of all existing customers would be changed), and a three-way geographic split (the current 414 area code would be split into three parts; in two parts, the area code of all existing customers would be changed). All of these options make additional telephone numbers (central office or NXX codes) available and thus provide relief to the existing 414 area code. Each option has a different impact on the telecommunications providers and users in the area. These options and impacts are discussed in more detail below.

³ As a result of the 414/920 area code split, approximately 263 NXX codes became available for assignment in the 414 area. By July of 1998, only 122 of these codes remained available. Of the 141 codes that had been assigned since the earlier area code relief was implemented, 47 were assigned to wireless providers, 76 were assigned to competitive local exchange companies and 18 were assigned to incumbent local exchange companies.

⁴ As new telecommunications companies enter the market, they request and are assigned central office codes (NXXs) so that they can serve their customers. Under the current assignment guidelines and process, each such assignment uses a full NXX (and its associated 10,000 line numbers) for every provider in every community that they wish to serve.

⁵ For example, a customer with a residential line for normal use, a second line for a modem connection to a personal computer, another line for use by the children in the home, and a cellular telephone uses four distinct 7-digit telephone numbers. Of course, other combinations of service are also possible, and lines needed for business purposes would add further demand for numbers.

The Commission considers that a two-way geographic split is the best method for providing area code relief in the current 414 area code. The Milwaukee area will retain the 414 area code and a new area code will be assigned to the other geographic region.⁶ The boundary between the 414 area code and the new area code is described in more detail below.

Additionally, while recognizing that number conservation efforts are not a part of area code relief, the Commission considers such efforts to be an extremely important part of area code resource management. Therefore, the Commission will aggressively investigate the possibility of developing a number conservation pilot project in Wisconsin whether it is a voluntary plan or a mandatory plan developed after obtaining a grant of authority from the Federal Communications Commission (FCC).⁷

PROCEDURAL BACKGROUND

Each year, the North American Numbering Plan Administrator (NANPA) conducts a Central Office Code Utilization Survey (COCUS) and uses the information collected to project when each area code will exhaust.⁸ These projections are used as a planning tool by the industry and the NANPA in the development of plans for providing area code relief. The 1998 COCUS indicated that the 414 area code could exhaust in the third quarter of 2000. However, the demand for central office codes continued to grow and the projected exhaust date was revised to

⁶ Although the industry did not support a geographic split, it identified a proposed boundary for a two-way split if one were pursued. The boundary that the industry identified follows roughly, but not exactly, the Milwaukee County line.

⁷ The FCC strictly limited state authority to adopt number conservation methods in FCC Docket No. 98-224 (released September 28, 1998) regarding Pennsylvania area code relief orders and requests for reconsideration in CC Docket No. 96-98. However, under certain circumstances, the FCC allows states to develop pilot projects.

⁸ The assignment of area codes and central office or NXX codes is directed in general by the NANPA. The FCC has contracted with Lockheed Martin to perform the duties of the NANPA.

the first quarter of 1999. The NANPA temporarily suspended central office or NXX code assignments in the 414 area code and the NANPA's Relief Coordinator (Relief Coordinator) contacted all central office code holders⁹ in the 414 area. Telecommunications industry meetings, facilitated by the Relief Coordinator, were held to address the problem and review various options for providing area code relief. The industry meetings took place in Milwaukee on July 14-15, 1998. Since the projected exhaust of the 414 area code had advanced so dramatically, a significant amount of time was also spent discussing the best ways to conserve the remaining central office codes. A rationing of codes was implemented and this has extended the projected exhaust date to the first quarter of 2000.

At its meetings, the telecommunications industry team¹⁰ discussed two basic alternatives for providing 414 area code relief and reached a general consensus that an all-service overlay, rather than a geographic split, should be recommended to the Commission.¹¹ On August 6, 1998, the Relief Coordinator wrote to the Commission on behalf of the industry team to advise it of the industry's recommendation. The industry team also organized community leadership meetings with members of local governments, legislators, Chambers of Commerce, and similar groups in the cities of Waukesha, Elkhorn, and Milwaukee during September 1998. The goal of the community leadership meetings was to provide information on the steps the telecommunications industry was taking to develop a relief plan in the 414 area and on the overlay recommendation it had submitted to the Commission.

⁹ A central office code holder, or NXX code holder, is a telecommunications provider that has been assigned central office codes and related line numbers for use in servicing customers.

¹⁰ Code holders active in this proceeding.

¹¹ MCI continued to favor a geographic split

On November 18, 1998, members of the Commission's staff met with members of the industry team to discuss which industry team members planned to participate in expected public hearings and to discuss materials and presentations that would be necessary and helpful at those hearings. On November 20, 1998, the Commission issued a "Notice of Proceeding, Public Hearings, and Request for Comments" (Notice). The Notice invited comments and set public hearings on December 2, 1998, in Kenosha; on December 3, 1998, in Milwaukee (two hearings); on December 9, 1998, in West Bend and Oconomowoc; and on December 10, 1998, in Elkhorn and West Allis. The Commission raised for consideration the alternative of a three-way geographic split. Hearings were set primarily to hear from customers in the 414 area. The Notice also requested written comments from interested parties. The Commission sought the views of all customers, including residential users, businesses and government, concerning the benefits or detriments of the alternative plans and concerning potential future number conservation plans. The Commission also sought input from the telecommunications industry on the costs, operational impacts, and competitive implications of the alternative plans and potential number conservation efforts. Finally, the Commission sought input from the NANPA including information as to the projected life expectancies of the alternative plans, whether obtaining more than one new area code was possible, and which geographic area would retain the 414 area code.

In addition to industry and media representatives, 48 individuals attended public hearings with a smaller number actually testifying. Written comments from 28 individuals or entities were submitted as well, a few from those who attended hearings and more from those who had not.¹²

¹² On February 2, 1999, the State Assembly's Committee on Utilities held an informational hearing on the topic at which representatives from the Commission's staff described the 414 area code issue and answered questions.

FINDINGS OF FACT

THE COMMISSION FINDS:

Access line growth and the increasing appearance of new telecommunications providers have caused an earlier than expected depletion of available central office codes in the 414 area code. Relief for that area code is required and the method for providing that relief is the issue in this case. There are advantages and disadvantages to both the overlay and split options, and no method will satisfy all customers and telecommunications providers in the 414 region; however, prompt selection of one method is required to ensure number relief, to enable a reasonable transition, and to provide an opportunity for the public to learn about the area code change and its implications.

THE OPTIONS FOR THE 414 AREA CODE

Description

There are two primary methods for providing area code relief that are acceptable to the FCC,¹³ an all-service overlay and a geographic split. The overlay method would assign a new, additional area code to cover the same geographic area as the current 414 area code. All current customers would keep their current ten-digit telephone numbers. The new area code would be assigned only to new telephone numbers as needed by residence and business customers. Because there would be two area codes serving the same geographic area, it would be necessary to dial the area code for all calls, including local intraexchange calls. This ten-digit dialing is

¹³ Pursuant to 47 C.F.R. § 52.19, the FCC has jurisdiction over numbering issues. The FCC has deferred to state commissions the selection of an area code relief plan, provided it meets FCC guidelines.

required by the FCC based on competitive concerns, not necessarily by physical dialing requirements of telephone switches.¹⁴

The geographic split method would divide the existing 414 area into either two or three area codes. Under either split plan, one of the split lines would follow roughly, but not exactly, the Milwaukee County line. Assuming the area inside this line kept the 414 area code, customers within this area would retain their existing seven-digit telephone numbers and the 414 area code. If a two-way split were chosen, the remainder of the existing 414 area would be assigned a new area code. If a three-way split were chosen, the remainder of the existing 414 area would be split into two new area codes. The area code(s) would change for all customers located in the geographic area(s) covered by the new area code(s). Their seven-digit numbers would not change, but they would have a new area code. For technological reasons, area code boundaries for geographic split plans almost exclusively follow telephone exchange or wire center boundaries, not city or county or school district boundaries.¹⁵ Therefore, some such communities of interest would be unavoidably divided between the area codes. Seven-digit dialing would be retained for local intraexchange calls within a particular area code; however, customers would need to dial the area code for local calls across the new area code boundary.¹⁶

Under either this overlay or geographic split plan, there is no change in rates for calls by affected customers. Dialing may change and the telephone numbers (the area code portion) may change, but the rates for local, extended area service, extended community calling, and long

¹⁴ FCC Docket No. 96-333 (released August 8, 1996), regarding administration of the North American Numbering Plan in CC Docket No. 92-237, § 286.

¹⁵ In part, this allows customers to only change area codes instead of having to change both their area code and their seven-digit telephone number.

¹⁶ Although generically referred to throughout this document as “ten-digit dialing”, whether a particular telephone company’s customers will have to dial ten digits or 1+ ten digits is a decision of that individual company.

distance calls do not change as a result of the selection of one area code relief plan over any other.

CRITERIA FOR EVALUATING AREA CODE RELIEF PLANS

There are a number of criteria to consider when evaluating area code relief plans. These are established by the FCC through regulations and through the NANPA Guidelines. The criteria consider competition, customer impacts, industry impacts, and the life of the plan. More specifically, the FCC requirements¹⁷ state that a plan must:

- (1) Facilitate entry into the telecommunications marketplace by making telecommunications numbering resources available on an efficient, timely basis to telecommunications carriers;
- (2) Not unduly favor or disfavor any particular telecommunications industry segment or group of telecommunications consumers; and
- (3) Not unduly favor one telecommunications technology over another.

The NANPA Guidelines and this Commission's concerns result in consideration of the following additional issues:

- (1) Customer Impact:
 - (a) What solution do customers prefer;
 - (b) Public reaction to and political involvement in boundary decisions;
 - (c) Impact on market identity and recognition, geographic identity, public familiarity and community of interest;
 - (d) Changes to customer telephone numbers;
 - (e) Customer confusion and inconvenience;
 - (f) Impact on customer premises equipment;
 - (g) Public implementation costs of the plans;
 - (h) Adequate time for consumer information and education.

¹⁷ 47 C.F.R. § 52.9

- (2) Industry Impact:
 - (a) Implementation costs of plans;
 - (b) Length of time to implement plans.
- (3) Duration of Area Code Relief

The extent to which the overlay and split plans meet these criteria, many of which overlap, is discussed below.

ANALYSIS OF THE PLANS

FCC Requirements

As mentioned above, the FCC adopted certain requirements for any area code relief plan.¹⁸ These are that a plan must make numbering resources available on an efficient and timely basis, must not favor or disfavor any particular industry segment or group of customers, and must not unduly favor any specific technology. Both overlay plans and split plans have been approved in other parts of the country and have been recognized by the FCC as viable approaches. Accordingly, this Commission sees that neither plan at issue in this docket, on its face, would fail this FCC test. Further analysis, however, does favor a geographic split given mandates on ten-digit dialing.

In addition to the three requirements discussed above, the FCC stated the following with respect to overlay plans:

To ensure that competitors, including small entities, do not suffer competitive disadvantages, we also conclude that, if a state commission chooses to implement an all-services area code overlay, it may do so subject to two conditions. Specifically, we will permit all-services overlay plans only when they include:

¹⁸ 47 C.F.R. § 52.9

(1) mandatory 10-digit local dialing by all customers between and within area codes in the area covered by the new code; and (2) availability to every existing telecommunications carrier, including CMRS providers, authorized to provide telephone exchange service, exchange access, or paging service in the affected area code 90 days before the introduction of a new overlay area code, of at least one NXX on the existing area code, to be assigned during the 90-day period preceding the introduction of the overlay.¹⁹

The issue noted above for the availability of at least one NXX was not raised as a matter of controversy in this proceeding. If an overlay were to be ordered, the industry would need to adhere to this requirement.

The issue of ten-digit dialing of local calls in an overlay plan was a factor in this case. This information was noted in the public hearings and referenced in the Commission's notice. The FCC instituted the ten-digit dialing requirement to ensure that competition is not inhibited.

We are requiring mandatory 10-digit dialing for all calls in areas served by overlays to ensure that competition will not be deterred. . . . Local dialing disparity would occur absent mandatory 10-digit dialing, because all existing telephone users would remain in the old area code and dial 7-digits to call others with numbers in that area code, while new users with the overlay code would have to dial 10-digits to reach any customers in the old code. When a new overlay code is first assigned, there could be nearly 8 million numbers assigned in the old area code, with just a few thousand customers using the new overlay code. If most telephone calls would be to customers in the original area code, but only those in the new code must dial ten-digits, there would exist a dialing disparity. . . . Customers would find it less attractive to switch carriers because competing exchange service providers, most of which will be new entrants to the market, would have to assign their customers numbers in the new overlay are code, which would require those customers to dial 10-digits much more often than the incumbent's customers, and would require people calling the competing exchange service provider's customer to dial 10-digits when they would only have to dial 7-digits for most of their other calls.²⁰

¹⁹ FCC docket 96-333, Released August 8, 1996, regarding administration of the North American Numbering Plan in CC Docket 92-237, § 286

²⁰ Id. at § 287

As discussed in more detail below, the ten-digit dialing factor was of critical importance to some customers. Accordingly, this particular FCC mandate was a strong factor in the Commission's determination that the overlay plan does not best meet the needs of customers in the 414 area.

Many commenters had suggested that since much of the utilization of telephone numbers can be attributed to growth in cellular and personal communication service (PCS) telephones and pagers, the wireless industry should absorb the burden of changing area codes. This would permit all other consumers to retain their 414 area code. Such “industry specific” or “wireless” overlays have been proposed before but have always been disallowed by the FCC which stated that an overlay targeted to specific services, providers or technologies is not permitted.²¹ The FCC stated that any burden associated with the introduction of a new area code should fall as evenly as possible upon all carriers affected by it, and that technology specific overlays shift too much of the burden to wireless carriers, thereby inhibiting competition. For example, paging, PCS and cellular customers (but not wireline customers) would have to bear the inconvenience of changing phone numbers and the cost of paying to reprogram equipment, as well as being those who would routinely have to dial more digits when placing calls. The FCC has held fast to its position that such a wireless overlay is an unjust and unreasonable practice because it unjustly discriminates and unduly limits competition despite requests for reconsideration and subsequent requests to approve such plans.

²¹ FCC Docket No. 96-333, § 281.

IMPACT ON CUSTOMERS

What Solution do Customers Prefer?

Customer input to this decision was received in three ways: comments submitted to the Commission, testimony from the public hearings, and “preference sheets” available at the public hearings indicating which (if any) of the alternatives an individual favored. Customer preference is, by far, for a geographic split.

Although it is not possible to summarize every position, in general, those who supported a split cited an interest in geographic identity, a belief that a split is more understandable, disapproval of the ten-digit local dialing mandate that would accompany an overlay, and dismay at the possibility of people in the same neighborhood or same building having different area codes in an overlay.

Those favoring an overlay cited a disapproval of a split because of the costs of changing letterheads, advertising and other written materials, and the confusion and inconvenience that would be caused by the need to notify persons that the area code was changed. Some stated that ten-digit dialing is inevitable and may as well begin now. Others preferred the overlay because it would end the potential need for additional area code splits in the future; additional overlays could be created as needed. Business people who had experienced prior area code splits either in Wisconsin or elsewhere, also described having experienced a significant loss of business each time an area code changed, perhaps due to the inability to notify all former customers of the change or to ensure that they make note of it. Some business people in the area changed to area code 920 in 1997, especially those with highly seasonal businesses or businesses that have

only infrequent contacts by repeat customers,²² also described a large loss of business when the phone number they used to have in the 414 area code was reassigned to a new carrier in the 414 area.

Based on the input at public hearings and through comments received, the Commission concludes that customers in the current 414 area code favor a geographic split more than the number overlay plan. However, the Commission is concerned about the problems raised by business people regarding the recordings on numbers where the area code has changed and on numbers that have been reassigned to a new carrier. The Commission directs that the industry team reconvene to develop an implementation plan for the area code relief plan ordered herein and that this plan be submitted to the Commission for approval. The industry team should address the intercept-message problems discussed above, involving all code holders, in its implementation report to the Commission. Among matters that should be considered and addressed in the report are: a requirement that, on lines not yet assigned to customers, code recipients receiving a reassigned NXX in an area code that underwent a split must provide an intercept message concerning the area code change, in addition to any other recording they may have concerning the number, and a requirement that code recipients must offer a service to the original holder of the ten-digit number that would allow that holder to keep the number with a voice mailbox or a longer term announcement about the area code change.

²² Before the reassignment, a recorded “intercept message” notified callers that the area code had been changed. After the reassignment, the recording indicated that the number had been disconnected, leading callers to believe the company had gone out of business.

Public Reactions to and Political Involvement in Boundary Decision

Impact on Market Identity and Recognition, Geographic Identity, Public Familiarity and Community of Interest

These factors will be considered together. The Commission views these criteria as relating to the location of a geographic split if one is selected as the method of area code relief. Although the industry recommended an overlay, it submitted a proposal for where the split should be if a geographic split was ordered. In general, the split as proposed would leave the 414 area code with that area inside a line that follows roughly, but not exactly, the Milwaukee County line. The outlying area would receive the new area code. Appendix B to the order is a map of the current 414 area that shows the industry's proposed split between the two area codes.

It is clear that the Commission has authority to develop and approve an area code relief plan even though the plan would involve modifications or additions of hardware and software, and changes to existing network routing and translations. "State commissions may perform any and all functions related to initiation and development of area code relief plans, so long as they act consistently with the guidelines enumerated in this part, and subject to paragraph (b)(2) of this section. . . . Such functions may include: . . . developing the details of a proposed area code relief plan or plans."²³

Drawing a line for a geographic split of an area code is a difficult task. Use of exchange or wire center boundaries is preferable to recognize and utilize the existing network architecture and infrastructure of the telephone network. To draw an area code boundary along geopolitical boundaries without regard to telephone exchanges would be costly, inefficient, could require customers to change their entire telephone numbers rather than just their area code, and could

²³ 47 CFR 52.19(b).

result in customers having their local calling areas and related charges changed. Any line drawn along exchange boundaries will invariably split, to some degree, other geopolitical entities. The line drawn by the industry does split some cities, counties, and school districts, although there were efforts to minimize this occurrence.²⁴

Some parties noted a preference for a split so that a distinct geographic identity of an area code with a location would be maintained. An overlay would assign two area codes to the same area; many customers suggested that this was not preferable. A physical division of the 414 area will provide a readily identifiable geographic entity for both the old and new area codes. On the basis of geographic identify, although it is true that a new overlaid area code could eventually gain a geographic identity with the current 414 area, a split is, on balance, the preferred solution for the 414 area.

The possibility of a three-way split was also considered. This possibility involved the same none xact Milwaukee County line to outline the area retaining 414, but then splitting the outlying area into two additional areas, each of which would receive a new area code. The Commission's ability to order such a split is limited by the NANPA Guidelines. One of these guidelines is that the "life" of a new area code should be no more than 15 years longer than the "life" of any other area involved in the split.²⁵ Two different three-way split possibilities were mentioned at the public hearings. However, the Relief Coordinator later determined that each of these violates the above 15-year rule. A number of different three-way split variations could be

²⁴ The largest impacts are on the cities of Muskego and New Berlin.

²⁵ NPA Code Relief Planning and Notification Guidelines, reissued July 13, 1998, §5.0(h).

evaluated using the data submitted in this proceeding; however, in the end the Commission finds that a two-way split is more likely to be approved by the NANPA and is the better choice for the 414 area.

Changes to Customer Telephone Numbers

Under either the geographic split or an overlay, customers need not change their seven-digit telephone numbers.²⁶ With an overlay, all existing customers keep the 414 area code. With a two-way geographic split, approximately 50 percent of the access lines in the current 414 area code will be assigned a new area code. For some customers, this is very meaningful and represents an expense for changing letterhead, business cards, and other written materials. Many who opposed a split cited the inconvenience and cost of such a number change as the reason for that position.

The Commission understands that changing the area code as a result of a geographic split is an expense, especially to businesses. Because all customers in the area to be changed would get that new area code, all these customers would need to alert potential callers of the changed number. Those with written materials and advertisements that include the telephone number would have to change the telephone number in those various media as well. With an overlay, although no telephone numbers change, ten-digit dialing becomes necessary. As numbers including the new area code are deployed, it will be increasingly necessary to include the area code, even if it is not changed, in materials the business has printed. This impact may well be

²⁶ Unless, in a geographic split, the area code line were drawn so that it did not follow exchange or wire center boundaries.

less than the impact under a split plan; however, it nonetheless exists. There will be costs for some customers to change their telephone number appearances if an overlay is used.

Considering only this factor of number changes, on balance the overlay is a preferable option. The Commission agrees that changing telephone area codes is an inconvenience for the approximately 50 percent of access lines located in the new area code under the geographic split option. That inconvenience should be mitigated, although not eliminated, by sufficient lead time in issuing this order, and getting the new area code assigned so that telephone customers can take steps to alert their customers, vendors, friends, and relatives of the change and to make the appropriate adjustments in printed materials to minimize the inconvenience. As mentioned previously, the industry team should address the issue of intercept messages in its implementation plan.

Some customers indicated that while they favored a geographic split, they felt that the inner Milwaukee area should get the new area code and the outlying area should keep the 414 area code. The NANPA Guidelines describe the issues to consider when deciding which area should retain the existing area code in a geographic split.²⁷ These include: population density, number of access lines, and number of wireless codes assigned in each of the split areas. These factors, on balance, favor keeping 414 within Milwaukee County. Accordingly, the 414 area code will be retained by the area inside the line roughly following the Milwaukee County line.

²⁷ See NPA Code Relief Planning and Notification Guidelines, reissued July 13, 1998, § 6.1.

Customer Confusion and Inconvenience

This issue relates to a great extent to the change of telephone numbers. Many business customers submitted comments stating it would be expensive and inconvenient to reprint business cards, stationery and other signage and would create confusion for their customers who try to reach them. As noted, the Commission believes this is a legitimate concern.

On the other hand, this was not a uniform view. Many expressed support for the geographic split, or opposition to the overlay, because of a different perspective on the confusion issue. For example, many pointed out that in an overlay all businesses will eventually have to make changes to letterhead, advertising, etc., to show the area code. This will be necessary since ten-digit dialing will be required and since, especially as time passes, there will be no way to know which of the overlay area codes a particular seven-digit number has, unless those additional three digits are specified. Other individuals expressed concerns for the elderly or persons with disabilities, in terms of adaptability, remembering longer numbers, and confusion around which numbers have which area codes.

A further confusion issue that was raised in this proceeding is the fact that, with an overlay, there will be cases where customers within the same exchange will have different area codes. Many raised concerns about neighbors with different area codes or customers with different area codes for separate lines at the same premises. These possibilities do exist, in some areas, although the likelihood of this happening is not clear as to frequency or location. To many customers this is a real concern. This issue does not arise if the outcome of this proceeding is a geographic split.

There is an element of confusion and inconvenience to any change of area code. Inaction is not an option, however. The Commission finds the concerns noted above to be representative of many individuals and organizations and to offer convincing opposition to the overlay. The Commission concludes that large segments of the public would be confronted by unnecessary confusion and inconvenience should an overlay solution, accompanied by the necessary ten-digit dialing of all local calls, be ordered in this proceeding. On this factor, a geographic split is more reasonable.

Impact on Customer Premises Equipment

Public Implementation Costs of Either Plan

The industry team has identified various costs that will be incurred with either area code relief plan. Specific costs on these issues are unknown, though they may be considerable. These costs are incurred by the telecommunications industry, as well as by end users who have customer premises equipment. Such costs are incurred under either plan. For example, in a geographic split, cellular and other wireless service telephones must be programmed, while this is not necessary in an overlay. However, in an overlay, such items as automatic dialers, alarm systems, and PBX systems must be reprogrammed to accommodate the required ten-digit dialing.

As discussed previously, the Commission finds that businesses located outside of the geographic split line will immediately incur costs in changing stationery, signage, business cards, etc., while in an overlay all businesses will eventually incur costs in adding area codes to these same items for ten-digit dialing. Some comments did identify the additional time and the

associated costs involved in ten-digit dialing as the primary reason for opposing the overlay solution and preferring the geographic split solution. Total consumer time and costs involved were unquantifiable or unidentifiable; however, the Commission acknowledges that meaningful costs do exist.

The Commission understands that all parties need sufficient lead-time to install the necessary modifications so that the new area codes can be incorporated into everyday operations. In general, there will be some additional costs due to any change in the area code. This factor does not strongly commend nor condemn either option.

Adequate Time for Consumer Information and Education

The Commission recognizes that time is of great importance in this docket so that the public can be informed of whatever change is ordered in the 414 area. With the issuance of this decision, the NANPA can start the process of issuing a new area code, and the consumer education and information process may begin. The issuance of this decision is in a time frame that would support either of the relief options.

INDUSTRY IMPACT

Implementation Costs of Either Plan

The Commission accepts that the most discernable impact to most industry team members is the need to modify the translations in their central office switching equipment in order to recognize the new area code. The Commission believes there will be some translation cost no matter which area code relief plan is approved. The telecommunications industry has an

obligation to inform and educate its customers of the impending changes and prepare customers so that the telecommunications network can operate as smoothly as possible.

The Commission acknowledges that wireless providers operating in this area will incur costs for reprogramming individual wireless phones. AT&T suggests “grandfathering” wireless telephone numbers and allowing them to retain their 414 area codes. The Commission finds it would be inappropriate to provide special permanent treatment to one industry segment when all telecommunications industry members will incur costs in implementing a new area code. Also, as previously mentioned, customers may also have equipment programming costs which must be included in their operating budgets as well as the costs of changing stationary, signage, etc. Finally, the Commission believes that customer confusion would exist if some customers would have a new area code and others retained the previous code in the same area. The Commission also believes that it is logical that wireless customers would want their telephone numbers to reflect the geographic area in which the customers are actually located. Finally, allowing wireless carriers to retain their 414 area codes for numbers in the new area code area will reduce the number of central office codes or NXXs available for reassignment in the 414 area, thus lessening the area code relief provided under this plan.

The Commission notes that states, including Wisconsin in the last 414 split, have enacted an extended permissive dialing period to ameliorate the wireless service providers' one-time reprogramming cost burden. This extended permissive dialing period enables the wireless providers to spread the conversion expense over an extended time period. The Commission finds that this approach may be reasonable provided that it is not of a duration to put area code

relief in jeopardy. The industry team should deal with the issue of the appropriate extended time frame for wireless service conversions in its implementation plan.

The need to make some change to the 414 area code is not questioned. Any change will result in costs to the telecommunications industry.²⁸ In this instance, cost is not the driving force to favor one plan versus another; costs will be incurred but the option selected should be driven by other factors.

Length of Time to Implement Either Plan

The August 6, 1998 letter that initiated this docket states that an overlay can be implemented more quickly than a geographic split. This is because, in an overlay, relief occurs as soon as the new area code is useable, while, in a split, prefixes must be “aged” before they are reassigned. However, this decision is made in a time frame that allows either plan to proceed; therefore, this factor does not strongly commend or condemn either option.

An implementation schedule should be included in the industry team’s implementation plan. This schedule should maximize the permissive dialing period during which calls to numbers in the new area code will go through even if they are dialed using the 414 area code. One of the goals behind maximizing this period is to allow telecommunications providers to avoid having to deal with possible Year 2000 computer problems at the same time that mandatory dialing, when the call will only go through if the correct area code is used, is implemented.

²⁸ A cost not addressed to any great extent in the proceeding is the additional network costs of ten-digit dialing for all local calls that would accompany an overlay. While these cost are unknown, that millions of local calls would need to be dialed with additional digits is not questioned however.

DURATION OF AREA CODE RELIEF

In the August 1998 filing that initiated this docket, the projected life expectancy for an overlay was 9.2 years and the projected life expectancies for a two-way geographic split were 7.0 and 7.5 years. These figures made the overlay more attractive as it would forestall the need for additional area code relief for a longer period of time. However, by the end of the proceeding the Relief Coordinator had found a calculation error that resulted in an overlay life expectancy of 7.25 years and geographic split life expectancies of 7.1 and 7.5 years.

The Commission understands that forecasting the length of area code relief is uncertain. Nothing supports this understanding better than the experience of the last 414 split where the remaining 414 area was projected to last eight years and in fact will have lasted less than three years. Of course, several events could change the forecasts of relief life for 414 that were noted above. One is that the request for new NXXs may decrease as the market becomes saturated and number demands may then return to a more "normal" growth pattern. The second is that local number portability is operational in the Milwaukee Metropolitan Statistical Area (MSA) and will be operational in other MSAs during and after 1999, and this should relieve some pressure by competitive local exchange carriers to obtain more NXXs. The third is number conservation action by the FCC. For instance, if the FCC adopts a plan to assign NXXs in blocks of one thousand numbers²⁹ (as opposed to ten thousand numbers as is done currently), the area codes would have a substantially longer projected life before further relief is needed. Number conservation is discussed in more detail below. Alternatively, like last time, growth in

²⁹ FCC docket 96-333, released August 8, 1996, regarding Administration of the North American Numbering Plan, § 290, n.616.

the 414 area or the new code area could be greater than now forecast and the need for further relief could occur sooner than now estimated.

The Commission finds that, based on current projections, there is not a significant difference in the life expectancies under either plan. Further, the Commission finds that by authorizing a geographic split at this time, it will provide additional future options for area code relief which are unavailable with an overlay. The Commission understands that if an overlay is implemented at this time, the only practical option in the future is to overlay the existing 414 area code with another overlay. However, with the authorization of a geographic split at this time, the Commission will have the option to use an overlay or a further split for relief in the future.

CONCLUSION

That the area relief obtained from the two-way geographic split solution is reasonable and in the public interest.

NUMBER CONSERVATION

The need for area code relief is the result of increased usage of NXX codes. Various efforts to conserve numbers are under consideration by the FCC. Illinois is running a pilot project under which NXXs are assigned in blocks of one thousand numbers rather than blocks of ten thousand as is currently done.

Number conservation efforts are not a substitute for or a part of an area code relief plan. However, the Commission considers such efforts to be an extremely important part of area code

resource management. Based on the input at public hearings and through comments received, it is clear that customers agree with this assessment.

The Commission does not have the authority to order number conservation. The FCC retains that authority.³⁰ However, the Commission may implement a voluntary conservation pilot project or may apply to the FCC for a grant of authority to implement a mandatory number conservation pilot project. Therefore, the Commission will aggressively investigate the possibility of developing a number conservation pilot project in Wisconsin to conserve, at a minimum, the numbers made available through this geographic split.

FINDINGS OF ULTIMATE FACT

THE COMMISSION FINDS:

1. That relief is necessary for the current 414 area code.
2. That an “industry-specific” or “wireless” overlay is prohibited by the FCC and, so, is not an option available to the Commission in this proceeding.
3. That the two-way geographic split is reasonable and in the public interest, and that it meets the FCC requirements for area code relief.
4. That the Commission has the authority to prescribe a plan that best meets the public interest. The public interest is best served by splitting the current 414 area code in the manner recommended by the industry team and leaving the 414 area code assigned to the area inside that line. The industry team recommendation creates the split along a line that follows

³⁰ FCC Docket No. 98-224, CC Docket No. 96-98.

roughly, but not exactly, the Milwaukee County line. (*See Appendix B*). As a result, the Ameritech Milwaukee exchange, except for rate zone 2, retains 414.

5. That based on preferences expressed during the public hearings and in comments to the Commission, consumers prefer the geographic split to the overlay plan.

6. That large segments of the public would be confronted by unnecessary confusion and the inconvenience of required ten-digit dialing for all local calls should an overlay plan be approved.

7. That changing area codes is an inconvenience for customers using the approximately 50 percent of the access lines in the current 414 area that will get the new area code. However, that inconvenience is mitigated by sufficient lead time in choosing a relief plan so that telephone customers can be properly informed and have time to make the appropriate adjustments to minimize the inconvenience.

8. That while the immediate implementation costs for a geographic split are greater for customers located in the new area code. In an overlay plan, all businesses will ultimately incur implementation costs and the required ten-digit dialing will also impose costs (although unquantified) on existing 414 area code customers.

9. That each plan requires a certain amount of equipment reprogramming.

10. That there are not significant differences between the life expectancies of the area codes under either plan.

11. That geographic split at this time will provide additional future options for area code relief which are unavailable with an overlay.

12. That adequate time exists to implement either relief plan.

13. That the intercept messages on NXXs that are made available in the 414 area under this relief plan and are then reassigned to new providers are a matter of concern to the Commission.

14. That it is reasonable for each NXX code holder to recover its unique implementation costs as part of its ongoing costs of doing business. That an extended permissive dialing period to ameliorate the wireless providers' one time reprogramming cost burden may be reasonable in the 414 area.

15. That the permissive dialing period should be maximized in order to ensure that telecommunications providers are not confronted with the simultaneous handling of Year 2000 computer problems and the implementation of mandatory dialing.

16. That the industry team, which should consist of all NXX code holders in the current 414 area, shall reconvene to create an implementation plan and schedule. It shall determine the education program that is needed to effectively implement area code relief in the 414 area, including educational efforts concerning any 1+ ten-digit dialing requirements and potential customer confusion as to which calls are local and which are toll. It shall include a schedule for when telecommunications providers will prepare their networks for optional dialing, when the optional or permissive dialing period is to begin, when the mandatory dialing will be implemented, and when the new NXXs will be available for reassignment in the 414 area code. The unique needs of the wireless industry for an extended permissive dialing period, and the need to avoid the simultaneous handling of Year 2000 computer problems and the implementation of mandatory dialing shall be considered and appropriate recommendations shall be included in the implementation plan. The plan shall address the intercept message problems

that occur when current 414 NXXs are reissued and shall consider and address matters such as: a requirement that, on lines not yet assigned to customers, code recipients receiving a reassigned NXX in an area code that underwent a split provide an intercept message concerning the area code change, in addition to any other recording they may have concerning the number, and a requirement that code recipients offer a service to the original holder of a 10-digit number that would allow that holder to keep that number with a voice mailbox or a longer term recording about the area code change.

17. That number conservation is an important part of area code resource management and that the possibility of a Wisconsin number conservation pilot project should be aggressively investigated.

CONCLUSION OF LAW

THE COMMISSION CONCLUDES:

It has jurisdiction under provisions of Wis. Stat. ch. 196, and authority from the FCC detailed in 47 C.F.R. § 52.19, to issue an order to implement a geographic split in a portion of the region now covered by the 414 area code, based on the above Findings of Fact.

ORDER

THE COMMISSION ORDERS:

1. That this order is effective upon date of mailing.

2. That the current 414 area code area shall be split so that the Ameritech Milwaukee exchange, except for its rate zone 2, retains 414. The remaining area shall receive a new area code.

3. That the industry team, which should consist of all NXX code holders in the current 414 area, shall reconvene to develop an implementation plan and schedule which will determine: the education program that is need to effectively implement area code relief in the 414 area (including educational effort concerning any 1+ten digit dialing requirements and confusion as to which calls are toll and which are local), when providers will prepare their networks for optional dialing, when the optional or permissive dialing period is to begin, when mandatory dialing will be implemented, and when the new NXXs will be available for assignment in the 414 area code. It shall also address concerns about the intercept messages used when such NXXs are reassigned and shall consider matters such as: a requirement that, on lines not yet assigned to customers, code recipients receiving a reassigned NXX in an area code that underwent a split provide an intercept message concerning the area code change, in addition to any other recording they may have concerning the number, and a requirement that code recipients offer a service to the original holder of a ten-digit number that would allow that holder to keep that number with a voice mailbox or a longer-term recording about the area code change. The industry team shall consider the unique needs of the wireless community for an extended permissive dialing period and the need for all providers to avoid simultaneously handing Year 2000 computer problems and implementation of mandatory dialing, and shall include appropriate recommendations in the implementation plan. The implementation plan and schedule shall be specific and shall be submitted to the Commission for approval.

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4. That the industry team shall submit a report to the Commission on the progress of the implementation requirements in para. no. 3 within 60 days from the date of the final order in this docket.

5. That the possibility of developing a Wisconsin number conservation pilot project shall be aggressively investigated and that the industry shall cooperate in this investigation.

6. That jurisdiction is retained.

Commissioner Joseph P. Mettner dissents to the selection of a geographic split as the means to provide for area code relief for the 414 area code.

Dated at Madison, Wisconsin, _____

By the Commission:

Lynda L. Dorr
Secretary to the Commission

LLD:JSM:reb:g:\order\digest order\pending\05-TI-181

See attached Notice of Appeal Rights

Notice of Appeal Rights

Notice is hereby given that a person aggrieved by the foregoing decision has the right to file a petition for judicial review as provided in Wis. Stat. § 227.53. The petition must be filed within 30 days after the date of mailing of this decision. That date is shown on the first page. If there is no date on the first page, the date of mailing is shown immediately above the signature line. The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

Notice is further given that, if the foregoing decision is an order following a proceeding which is a contested case as defined in Wis. Stat. § 227.01(3), a person aggrieved by the order has the further right to file one petition for rehearing as provided in Wis. Stat. § 227.49. The petition must be filed within 20 days of the date of mailing of this decision.

If this decision is an order after rehearing, a person aggrieved who wishes to appeal must seek judicial review rather than rehearing. A second petition for rehearing is not an option.

This general notice is for the purpose of ensuring compliance with Wis. Stat. § 227.48(2), and does not constitute a conclusion or admission that any particular party or person is necessarily aggrieved or that any particular decision or order is final or judicially reviewable.

Revised 9/28/98

APPENDIX A

This proceeding is not a contested case under Wis. Stat. ch. 227, therefore there are no parties to be listed or certified under Wis. Stat. § 227.47. However, an investigation was conducted and the persons listed below participated.

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