

FLORIDA PUBLIC SERVICE COMMISSION  
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MEMORANDUM

December 4, 1997

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYO)

FROM: DIVISION OF COMMUNICATIONS (WIDELL, CORDIANO) *SG for RAN*  
DIVISION OF LEGAL SERVICES (BROWN, BOWMAN) *MB* *TW*

RE: DOCKET NO. 971058-TL - REQUEST FOR REVIEW OF PROPOSED  
NUMBERING PLAN RELIEF FOR AREA CODE 305.

AGENDA: DECEMBER 16, 1997 - REGULAR AGENDA - POST HEARING  
DECISION - PARTICIPATION IS LIMITED TO COMMISSIONERS AND  
STAFF

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: S:\PSC\CMU\WP\971058TL.RCM

CASE BACKGROUND

The North American Numbering Plan (NANP) was introduced in 1947 by AT&T. The NANP governs the assignment and use of telephone numbers in North America and other World Zone 1<sup>1</sup> Countries. The plan is based on a destination code in which each main telephone number in the NANP is assigned a specific address or destination code. The destination codes are commonly referred to as telephone numbers. NANP telephone numbers are in a 10-digit format, consisting of a 3-digit Numbering Plan Area (NPA) code, a 3-digit Central Office code, and a 4-digit station address code. The NPA code is commonly known as the area code, and the Central Office Code is commonly referred to as an NXX code. BellCore is currently the code administrator with the responsibility of assigning area codes within the NANP. However, this responsibility is currently being transferred to Lockheed Martin. Generally, the Regional Bell Operating Company (RBOC) or large independent in a specific area

<sup>1</sup> World Zone 1 Countries consist of Anguilla, Antigua and Barbuda, Commonwealth of the Bahamas, Barbados, Bermuda, British Virgin Islands, Cayman Islands, Canada, Dominican Republic, Grenada, Jamaica, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Turks and Caicos Islands, Trinidad and Tobago, and the United States of America, including Puerto Rico and the Virgin Islands.

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code is responsible for the assignment of central offices codes within that NPA. This responsibility will also be transferred to Lockheed Martin in the near future. These entities are required to follow guidelines approved by Bellcore and the telecommunications industry when assigning either NPAs or Central Office Codes.

In the late 1950s it became apparent that NPAs were being assigned at a rate significantly higher than originally anticipated. Out of that early concern came a plan to expand the supply of numbers through the introduction of interchangeable codes. The introduction of interchangeable codes modifies the format previously used for the area codes and the central office codes. The previous format of the area codes was N,0/1,X while the central office code format was N,N,X.<sup>2</sup> Currently, the interchangeable area codes and central office codes take the format of N,X,X. The industry began the implementation of interchangeable Central Office codes in 1974. In January 1992, Bellcore notified the telecommunications industry that interchangeable NPAs would be introduced in early 1995. Prior to the introduction of interchangeable NPAs, the NANP had 160 NPAs which provided a total of 1.28 billion available telephone numbers for assignment. The introduction of the interchangeable NPA codes provided an additional 640 NPAs, which provide a total of 6.4 billion telephone numbers available for assignment.

The Industry Carriers Compatibility Forum Guidelines identify three possible alternatives to provide relief to an area code: a geographic split; a boundary realignment; or several variations of an overlay. The guidelines state that a geographic split by definition is when the exhausting NPA is split into two geographic areas, leaving the existing NPA code to serve, for example, an area with the highest customer density. This method divides areas by jurisdictional, natural, or physical boundaries between the old and new NPAs. A geographic split has been the relief plan of choice for virtually all NPA relief situations prior to 1995. NPA splits have occurred with enough frequency so that technical aspects have been addressed and established implementation procedures are generally understood. Public education and acceptance of the process have been made easier because of the numerous NPA splits that have occurred.

For a boundary realignment, the guidelines require that the NPA requiring relief is adjacent to an NPA within the same state or province, which has spare Central Office code capacity. A boundary

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<sup>2</sup>N is defined as any number from 2 through 9 and X is defined as any number from 0 through 9.

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shift occurs so that spare codes in the adjacent NPA can be used in the NPA requiring relief. As a result, the geographic area of the exhausting NPA shrinks, and the geographic area of the NPA with spare capacity expands. Only the customers in the geographic area between the old and new boundaries are directly affected by this change. This method is viewed as an interim measure because it tends to provide shorter term relief than providing a new NPA code.

An overlay occurs when more than one NPA code serves the same geographic area. In an NPA overlay, code relief is provided by opening up a new NPA code within the same geographic area as the NPA(s) that requires relief. Numbers from this new NPA are assigned to new growth on a carrier neutral basis, i.e. first come first served. Mandatory customer number changes within the affected overlay relief area are eliminated. With the overlay relief method, the FCC requires 10-digit dialing for all of the affected customers' local calls within and between the old and new NPAs in order to ensure that competitors, including small entities, do not suffer competitive disadvantages. The overlay method eliminates the need for customer number changes like those required under the split and realignment methods. It also allows the option to eliminate or shorten the permissive dialing period as a part of implementation. (EXH 1, DMB-1 pp. 12,13) In addition to requiring 10-digit dialing for all local calls, the FCC requires that every carrier authorized to provide telephone service in the affected area code have the ability to be assigned at least one NXX in the existing area code during the 90-day period preceding the introduction of the overlay.

On July 15, 1997, BellSouth Telecommunications, Inc. (BellSouth), the numbering administrator for the 305 area code, notified the Commission that the 305 area code would exhaust its remaining available NXXs sooner than expected. BellSouth reported that representatives of South Florida's telecommunications service providers had agreed that relief from the imminent exhaustion should be accomplished through an overlay relief plan. The overlay relief plan would encompass the same geographic area as the current 305 area code. All new NXXs issued after July 1, 1998, would receive the new area code. Old NXXs would retain 305. Under the overlay plan, current customers would not be required to change their area code, but all customers would be required to dial all local calls as ten digits, within and between area codes as FCC Order No. 96-333 requires.

Usually, the Commission does not formally review area code relief plans unless a specific dispute over what plan should be implemented arises between affected members of the industry. The Commission will defer to the industry consensus. In this case,

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however, the Commission received several objections to the proposed plan from members of the public, asking that the Commission review the 305 relief plan. Because the overlay will require ten digit dialing of all local calls, which may be confusing to customers, the Commission determined that it was in the public interest to review this particular plan. The Commission conducted service hearings in Miami and Key West on October 1 and 3, 1997, respectively, and a technical hearing in Tallahassee on October 13, 1997.

Originally four companies, BellSouth, AT&T, MCI, and TCG, filed testimony in this proceeding either supporting the industry relief plan or opposing the proposed plan. However, prior to the beginning of the technical hearing, all of the companies that filed testimony entered a stipulation that contained the following three (3) conditions, if approved:

1. There would be no slippage due to action or inaction by BellSouth in its timetable for implementing local number portability.
2. Mandatory ten digit dialing would be implemented for all calls within and between the 305 area code and the new area code, effective on the date the new area code is activated.
3. The parties acknowledged the Commission staff had committed to investigate methods of conserving numbering resources in Florida and that BellSouth agreed not to delay, or not to advocate delaying implementation of any Florida-specific mechanism pending national action, unless national action appears to be eminent.

AT&T, MCI and TCG agreed to withdraw their testimony in opposition to the proposed overlay since the stipulation conditions would either eliminate or minimize the concerns associated with an overlay relief plan. The Commission approved the stipulation at the commencement of the hearing.

Essentially, four different types of relief mechanisms were discussed in this proceeding: a geographic split; an overlay of the entire 305 area code; a concentrated growth overlay for Dade County; and a modified concentrated growth overlay. (Baeza TR 23, 38, 48) BellSouth has notified staff that the new area code selected to relieve 305 is 786 (SUN). This recommendation will address which relief plan the Commission should implement, and what specific dialing patterns should apply in order to make calls in the affected area codes.

DISCUSSION OF ISSUES

ISSUE 1: Should the Commission approve BellSouth's proposed overlay plan for 305 area code relief, and if not, what relief plan should the Commission approve?

RECOMMENDATION: No. The Commission should order the implementation of a concentrated growth overlay for the Dade County portion of the 305 area code with no change for the Monroe County portion. In addition, the Commission should reserve 20 NXXs, as described in the staff analysis, for growth in the Keys. (WIDELL)

POSITIONS OF THE PARTIES

BELLSOUTH: Yes. The overlay relief plan for 305 area code relief is the most appropriate option.

STAFF ANALYSIS: Commissions across the country have struggled over the past few years with the issue of whether a geographic split or some form of area code overlay is the more appropriate method of providing relief from the exhaustion of telephone numbers within an area code. This proceeding is the third in which we have been faced with making a determination as to which relief plan should be implemented in Florida to relieve an area code from impending exhaust. (Docket Nos. 941272-TL and 961153-TL.)

During this proceeding four specific area code relief options were discussed:

1. Geographic split with the Dolphin expressway (Dolphin) as the boundary between the 305 and the new area codes.
2. Distributed overlay with the new area code overlaying the entire present 305 area code.
3. Concentrated growth overlay with only the Dade County portion of 305 in the overlay and no changes to the Monroe County portion.
4. Modified concentrated growth overlay with Dade County portion of 305 in the overlay and Monroe County portion of the 305 area code changing their area code to the new area code. (Baeza TR 25-28, 59)

As BellSouth's witness Baeza explained in his testimony, each type of plan (geographic split or overlay) has inherent advantages and disadvantages. Listed below are some of the advantages and disadvantages that were identified for each type of plan. (Baeza TR

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25-28,59. See also Order No. PSC-95-1048-FOF-TL, Docket No. 941272-TL, issued August 23, 1995.)

#### **Advantages of Overlay Plan**

1. Customers in the overlay area can retain their telephone numbers.
2. Customers are not required to change advertisements containing 305 area code telephone numbers.
3. Cellular carriers are not required to reprogram their customers' cellular telephones.
4. Costs to customers and carriers are minimized.

#### **Disadvantages of Overlay Plan**

1. 10-digit dialing is required for all local calls within the overlay area.
2. Directories and Directory Assistance will be required to provide 10-digit numbers.
3. All advertisements that contain 7-digit telephone numbers must be changed to 10-digit numbers.

#### **Advantages of Geographic Split**

1. 7-digit dialing would remain for intra-NPA local calls.

#### **Disadvantages of Geographic Split**

1. Customers in an area with a new area code must change the area code portion of their telephone numbers.
2. Customers in an area with a new area code must change advertisements which included the 3-digit area code.
3. A short permissive dialing period.

In addition to the advantages and disadvantages listed above that were identified at the hearing, the Commission considered four criteria in its previous 305 area code relief proceeding that are relevant to the issue in this proceeding: 1) Competitive Concerns; 2) Impacts to Customers; 3) Impacts to Carriers; and 4) Length of Relief. (Order No. PSC-95-1048)

#### **Competitive Concerns**

The Commission explained in Order No. PSC-95-1048 that a geographic split such as Option 1 would not cause any anti-competitive problems since all carriers are treated the same. Overlay options like Options 2-4 do not raise any competitive

concerns either, since each overlay option requires 10-digit dialing for all local calls, and, as BellSouth's witness Baeza explained, permanent number portability will be implemented in Dade county prior to the completion of any overlay within the 305 area code. (Baeza TR 26.) Although permanent number portability is not required in Monroe County prior to the implementation of the new area code, the record shows that there does not appear to be a significant amount of competition in Monroe County at this time based on the current code usage. (EXH 2, pp. 91,92) Therefore, based on the record, staff recommends that there are not any major competitive concerns for any of the relief options proposed above.

#### Impacts to Customers

According to witness Baeza, the geographic split plan would require approximately half of the present 305 area code customers to change to the new area code, 786. In addition to a number change for half of the customers, in order to give the old and the new area codes any significant relief the Miami exchange must be divided between the new and the old area codes. While this division is technically possible, it would require 10-digit dialing for all local calls between the two area codes. (Baeza TR 25) The division of a major local calling area such as Miami is a significant distinction between the circumstances in the 954 proceeding and this one. (See Order No. PSC-95-1048)

According to witness Baeza, the main advantage for customers with the split plan is that 7-digit local dialing can be maintained within each area code, and 10-digit local dialing would only be required for local calling between the area codes. Also, according to witness Baeza, geographic splits have been the chosen alternative for nearly all area code relief plans occurring before 1995; therefore, the technical aspects of this method have been resolved, and implementation procedures are well understood by customers. (Baeza TR 24)

As BellSouth's witness Baeza stated in his testimony, the main advantage of providing relief with one of the overlay options is that no number changes are required, so that customer inconvenience and cost is minimized. However, the major disadvantages for customers are that 10-digit dialing is required by the FCC for all local calls, and customer confusion may be increased by having two area codes serving the same area. Under an overlay plan, it would be very possible that businesses or neighbors next door or across the street from each other could have different area codes. (Baeza TR 28) These disadvantages would be limited to the Dade County subscribers under the concentrated growth overlay plan.

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The Commission held two service hearings in Miami and Key West to receive input from the customers in the affected areas. Presentations were made by BellSouth and staff to explain the relief options being considered and the advantages and disadvantages of the split and overlay plans.

In Miami, 15 of the 18 public witnesses preferred the overlay plan. The witnesses represented various chambers of commerce and other citizen groups. (Miami Service Hearing TR 32,33,36-38,40,41,44-46,48,51-53,68) However, in Key West the witnesses objected to the overlay plan because they did not want two different area codes serving the Keys. They believed the confusion created for the tourist would be very difficult to overcome. (Key West Service Hearing TR 17,18,40,51,60,65,71,75,76,78,84,88,109) The majority preferred to keep the 305 area code but indicated that they would accept a new area code rather than having two.

Staff believes that the record shows that from the customer perspective the concentrated growth overlay plan, with only Dade County exchanges in the overlay area, and no changes in the Monroe County exchanges, would provide a solution that will satisfy both subscriber groups.

#### Impacts on Carriers

The record shows that with the implementation of a geographic split, the biggest identified impact to carriers is that the cellular carriers have to reprogram all cellular telephones in the new area code. Under either overlay plan, there are no number changes, hence no reprogramming of cellular phones. (Order No. PSC-95-1048.) However, some modifications to operational support systems would be necessary in order to handle 10-digit dialing for all local calls. (Baeza TR 50,55,59)

#### Length of Area Code Relief

The projected exhaust dates for the 305 and the new area code under the geographic split plan considered (Dolphin 3) and any overlay option are essentially the same, 2009 and 2010. (EXH 1, p.25) Therefore, for the basic decision of split versus overlay, length of relief is not a factor.



### Conclusion

Staff believes the Commission should implement Option 3, a concentrated growth overlay with only the Dade County portion of 305 in the overlay, and no changes to Monroe County. Although no option appears to be markedly superior to other options, staff believes that the record shows that only the concentrated growth overlay can meet the customers' interests as expressed at the service hearings in Miami and Key West.

Staff realizes that Option 3 and 4 are very similar; however, staff believes Option 4 has some adverse impacts on the customers of the Keys with little overall benefit. First, the customers in the Keys would have to change their area code, which for most businesses is a serious concern. (Baeza TR 25-28, 59) Although this relief option would provide additional 305 NXXs for use in Dade County, the exhaust date for the 305 area code would only be extended for a couple of months due to the high usage in Dade County. (EXH. 2, p. 92) Second, staff does not believe that we can provide a sufficient permissive dialing period that would allow people to dial either 305 or the new area code (786) to reach customers in the Keys. Commission has required at least a 9 month permissive dialing period in the past. (Order No. PSC-95-1048) Therefore, based on these concerns staff would not recommend the Commission implement Option 4.

Staff's only concern with Option 3 is the necessity to reserve some NXXs for future growth in the Keys. There is nothing in the record to provide any assistance in determining the appropriate number of NXXs for future growth. However, staff is currently working on a utilization study of all area codes that is due to be completed prior to the mandatory dialing date of July 1, 1998. Therefore, staff would recommend the Commission reserve 20 NXXs for future use in the Keys. At the end of the utilization study, staff will provide a recommendation to the Commission on the disposition of any unassigned NXXs in the Keys. Staff would like to point out that the 20 NXXs should come from the pool of 68 NXXs reserved due to the FCC requirement that each carrier have a code for use in an overlay area. (FCC Order No. 96-333) Staff believes that 48 NXXs, rather than 68, will provide a sufficient number of codes to fulfill the FCC's requirement that each code holder will have one NXX available 90 days prior to the implementation of the overlay.

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Plan		NPA	County	Access Lines	Number Exch.	Existing NXXs	Exhaust
1	Split	305	Dade	719,196	2	367	2009
		786	Dade & Monroe	751,419	10	217	2010
2	Distributed Overlay	305 & 786	Dade & Monroe	1,470,615	11	584	2009
3	Concentrated Growth Overlay	305 & 786	Dade	1,396,120	4	550	2009
		305	Monroe	74,495	7	34	2014*
4	Concentrated Growth Overlay	305 & 786	Dade	1,396,120	4	550	2009
		786	Monroe	74,495	7	34	2014*

\* Calculated using 20 available NXXs at a usage of 1.2 NXXs per year.  
 (EXH 1, p.25; EXH 2, p.18, p.92)

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ISSUE 2: If the Commission approves an overlay, when and to what extent should the Commission require 10-digit local dialing? (Cordiano)

RECOMMENDATION: For all local calls placed between and within the area codes in the overlaid area, the Commission should order 10-digit permissive and 10-digit mandatory dialing to begin on March 1, 1998 and July 1, 1998, respectively.

POSITIONS OF THE PARTIES

BELLSOUTH: With an overlay, 10-digit dialing would be required for all local calling within the overlay area. During the permissive period of implementation of the overlay, both 7-digit and 10-digit dialing would be allowed. Once the permissive dialing period is concluded, 10-digit dialing would be mandatory for all calls within the overlay area.

STAFF ANALYSIS: On August 8, 1996, the Federal Communications Commission (FCC) issued its Second Report and Order, CC Docket No. 96-98, et al. In regard to the area code implementation guidelines for the overlay of area codes, Section V, Paragraph 281 states that the guidelines prohibit all service-specific or technology-specific overlays and imposes conditions on the adoption of an all-services overlay. In addition, the numbering administration should: 1) seek to facilitate entry into the communications marketplace by making numbering resources available on an efficient and timely basis; 2) not unduly favor or disadvantage any particular industry segment or group of consumers; and 3) not unduly favor one technology over another. Paragraph 286 further states that if a state Commission chooses to implement an all-services overlay plan, it may do so only if the plan includes: 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 of at least one NXX in the existing area code to every 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. The NXX should be assigned during the 90-day period preceding the introduction of the overlay.

In staff's analysis for Issue 1, three of the four relief options for the 305 area code propose either a distributed overlay or a concentrated growth overlay. The implementation of either plan must be consistent with the FCC's guidelines governing the overlay of area codes. The record shows that whether the Commission decides on the distributed overlay or the

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concentrated growth overlay, the technical aspects of the implementation will essentially be the same in that 10-digit dialing will have to be implemented for all calls placed between and within the area codes in the overlaid area. (See FCC Order No. 96-333) BellSouth witness Baeza proposes that permissive dialing should begin January 1, 1998. (Baeza TR 28) Since the Commission is not making a decision until mid-December, staff is concerned with being able to technically implement and provide sufficient notice of a 10-digit permissive dialing period beginning by January 1, 1998, and ending July 1, 1998. Therefore, staff recommends that the Commission require 10-digit permissive dialing to begin March 1, 1998 and end on July 1, 1998. Staff believes this will allow carriers ample time to make the necessary modifications to implement 10-digit local dialing and provide their customers with sufficient notification of the dialing requirements that will affect their calls. Although staff is concerned with the short permissive dialing period, staff believes that four months is sufficient in an overlay scenario, because no numbers will change (Baeza TR 26.)

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ISSUE 3: Should this docket be closed? (BOWMAN)

RECOMMENDATION: Yes, with the adoption of staff's recommendation in Issues 1 and 2, this docket should be closed.

STAFF ANALYSIS: Assuming Issues 1 and 2 are approved, staff does not believe there is any need to keep this docket open. Therefore, staff recommends the Commission close this docket.