November 18, 2022

22-00128

Via Email

Ectory Lawless, J.D.
Dockets and Records Manager
Tennessee Public Utility Commission
502 Deaderick Street
Nashville, TN 37243

RE: *Petition of the North American Numbering Plan Administrator on behalf of the Tennessee Telecommunications Industry for Relief of the 423 Numbering Plan Area*

Dear Ms. Lawless:

The North American Numbering Plan Administrator ("NANPA"), hereby submits a petition on behalf of the Tennessee telecommunications Industry for relief of the "423" Numbering Plan Area (NPA or area code). An original hard copy of the petition is in the U.S mail.

If you have any questions regarding this filing, please contact me at at fweber@nanpa.com or 925-420-0340.

Respectfully Submitted,

Florence Weber
Senior Director
NANPA
Two Tower Center Blvd. Floor 20
East Brunswick, NJ 08816
925-420-0340
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BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION
Nashville, Tennessee

In re:

Petition for Approval of Numbering Plan Area Relief Plan for the 423 NPA) **Docket No: 22-00128**

PETITION OF THE NORTH AMERICAN NUMBERING PLAN ADMINISTRATOR ON BEHALF OF THE TENNESSEE TELECOMMUNICATIONS INDUSTRY FOR RELIEF OF THE 423 NPA

The North American Numbering Plan Administrator ("NANPA"), as the neutral third-party numbering plan area ("NPA") (also referred to as "area code") relief planner for Tennessee and on behalf of the Tennessee telecommunications industry ("Industry"),[1] hereby notifies the Tennessee Public Utility Commission ("Commission")[2] that the 423 NPA, covering two non-contiguous areas in eastern Tennessee, is projected to exhaust its central office codes (often referred to as "CO" or "NXX" codes) during the third quarter of 2025 and is in need of relief. This means that absent NPA relief, the supply of CO codes in the 423 NPA is projected to run out during the projected exhaust quarter.

The Industry recommends that it implement an all-services distributed overlay based upon a 13-month schedule that is completed at least six months prior to the

[1] The Industry is composed of current and prospective telecommunications carriers operating in, or considering operations within, the 423 NPA.

[2] The Federal Communications Commission ("FCC") delegated authority to the states to review and approve NPA relief plans. *See* 47 C.F.R. §52.19.

projected exhaust of the 423 NPA.[3] Pursuant to the NPA Code Relief Planning and Notification Guidelines ("NPA Relief Guidelines"), once "the regulator issues an order (or other written approval) for NPA relief, NANPA should be provided approximately 75 calendar days from the date of the order (or other written approval) to assign a new NPA, ensure a press release is issued to announce the new NPA, to schedule and facilitate an implementation meeting, and publish the Planning Letter(s)."[4]

The Industry respectfully requests that the Commission approve the Industry's plan to implement an all-services distributed overlay based upon a 13-month schedule as set forth herein.

I. Background

The 423 NPA was created as a result of a geographic split of the 615 NPA in September 1995. The split roughly followed the boundary between the Eastern and Central time zones with the 423 NPA remaining in the Eastern time zone. In 1999, the 423 NPA needed additional relief and the 865 NPA was created as part of a three-way split that divided the 423 NPA into two non-contiguous areas that nearly surround the 865 NPA.

The 423 NPA includes but is not limited to Chattanooga, Bristol, Johnson City, Kingsport and many other smaller communities and, in addition to nearly surrounding the 865 NPA, is bordered on the north by the Kentucky 606 NPA and the Virginia 276

[3] NPA Code Relief Planning and Notification Guidelines (ATIS-0300061, April 1, 2022) ("NPA Relief Guidelines"), §5.1. The NPA Relief Guidelines can be accessed on the ATIS website located at https://access.atis.org/apps/group_public/documents.php?view=.

[4] NPA Relief Guidelines at §5.10.1.

NPA, to the east by the North Carolina 336/743 and 828 NPAs, to the south by the Alabama 256/938 NPA and Georgia 706/762 NPA, and to the west by the 931 NPA.

II. Description of Relief Alternatives

As required by the FCC, NANPA collects CO code assignment, utilization, and forecasted demand data to determine the projected need for numbering resources. NANPA uses this data to project the exhaust date of each area code and publishes the results twice a year. In October 2022, NANPA published its semi-annual Numbering Resource Utilization/Forecast (NRUF) and NPA Exhaust Analysis ("October 2022 NRUF Report") which indicated that the 423 NPA would exhaust during the third quarter of 2025.[5]

NANPA distributed a notice to the Industry on September 12, 2022, containing an Initial Planning Document (IPD)[6] which included two alternatives for relief, an all-services distributed overlay and a geographic split, for review prior to the relief planning meeting. The Industry met via web conference on October 11, 2022[7] and after a thorough review of the relief alternatives, reached consensus to recommend Alternative #1, the all-services distributed overlay of the 423 NPA.

- **Alternative #1: an all-services distributed overlay of the 423 NPA**

A new overlay NPA code would be assigned to the same geographic area occupied by the existing 423 NPA. Customers would retain their current telephone numbers;

[5] The October 2022 NRUF and NPA Exhaust Forecast Analysis ("October 2022 NRUF Report") can be accessed on the NANPA web site at https://nationalnanpa.com/reports/reports_npa. The projected exhaust date did not change from the April 2022 NRUF Report.

[6] NANPA's meeting notice with IPD is attached as Exhibit A.

[7] The October 11, 2022 meeting minutes are attached as Exhibit B.

however, 10-digit local dialing by all customers within and between NPAs in the affected area would be required. CO codes in the overlay NPA will be assigned upon request with the effective date of the new NPA. If all CO codes in the 423 NPA have not been assigned by the effective date of the new NPA, CO code assignments will not be made from the new NPA until all CO codes in the 423 are allocated. There are 75 rate centers in the 423 NPA. At the current CO code assignment rate in the 423 NPA, the projected life of this alternative would be 34 years.

- **Alternative #2: a geographic split of the non-contiguous 423 NPA**

The non-contiguous 423 NPA would become two distinct geographic areas and a new NPA code would be assigned to one of the two areas. No recommendation is made for which area would retain the 423 NPA and which area would receive the new NPA. Within each NPA, seven-digit local dialing would be retained but 10-digit local dialing would be required between the two NPAs. The proposed alternative would split the 423 NPA into separate NPAs, with the northern portion of the noncontiguous 423 NPA designated as Area A and southern portion of the noncontiguous 423 NPA designated as Area B, as shown in the IPD Alternative #2, 423 NPA Split Rate Center Map. There are 43 rate centers in the 423 NPA Area A and 32 rate centers in the 423 NPA Area B. At the current CO code assignment rate the 423 NPA, the projected lives for each area of this alternative would be 33 years for Area A and 37 years for Area B.

III. Industry-Recommended Relief Alternative

At the relief planning meeting, the Industry participants discussed the attributes of both relief alternatives and reached consensus to request approval by the Commission of Alternative #1, an all-services distributed overlay of the 423 NPA as the recommended form of relief. The Industry supported the all-services distributed overlay

alternative because customers would retain their existing NPA and telephone number, customer education would be less confusing, and it will take less time to implement.[8]

The all-services distributed overlay would add a new NPA over the same geographic areas covered by the two existing non-contiguous 423 NPA areas and is projected to last approximately 34 years. NANPA will assign CO codes from the new overlay NPA once all assignable CO codes from the 423 NPA are allocated. All existing customers would retain their current area code in the overlay area and would not have to change their telephone numbers.

The Industry-recommended dialing plan for the all-services distributed overlay is set forth in the following table:

Dialing Plan for the 423 NPA All-Services Distributed Overlay

Type of Call	Call Terminating in	Dialing Plan
Local Call	Home NPA ("HNPA") or Foreign NPA ("FNPA") (including Extended Area Service (EAS) calls)	10 digits (NPA-NXX-XXXX) *
Toll Call	HNPA or FNPA	1+10 digits (1+NPA-NXX-XXXX)
Operator Services Credit card, collect, and third party	HNPA or FNPA	0+10 digits (0+NPA-NXX-XXXX)

* 1+10 permissive dialing at service provider's discretion

The Industry reached consensus to implement the new overlay NPA in accordance with a 13-month schedule. The schedule does not include specific dates, but rather timeframes to identify the phases of implementation. Once the

[8] See Exhibit B which includes the final meeting minutes from the October 11, 2022, meeting, including Industry consensus on pros and cons for each relief alternative.

Commission has approved the Petition, the Industry will select specific dates at an implementation meeting to ensure the dates do not interfere with certain holidays, high traffic calling days, network freeze periods, or other NPA relief implementation activities occurring across the country. Moreover, the Commission's prompt approval of the Petition and adherence to the proposed implementation timeframe schedule will avoid the denial or delay of service to telecommunications providers' customers due to the unavailability of CO codes.

The Industry-agreed upon implementation timeframe schedule is set forth in the following table:

Implementation Timeframe Schedule
for the 423 NPA All-Services Distributed Overlay

EVENT	TIMEFRAME
Network Preparation Period	6 months
Permissive 10-Digit Dialing and Customer Education Period *(Calls within existing NPA can be dialed using 7 or 10 digits)* Mandatory 10-digit local dialing begins at the end of the Permissive Dialing Period	6 months
First CO Code Activation after end of Permissive dialing period *(Effective date for CO codes to be assigned from the new NPA)**	1 month (after Mandatory 10-digit local dialing begins)
Total Implementation Interval	13 months

**CO codes in the new NPA will not be assigned until all available CO codes in the existing 423 NPA are allocated.*

After the Commission issues a final decision, NANPA will need approximately 75 days to assign the new NPA, work with the Commission to issue a press release announcing the new NPA, schedule and facilitate an Industry implementation meeting, and publish a Planning Letter. The Industry will then form a committee to begin

implementation of the new area code approximately 19 months prior to exhaust of the 423 NPA.[9]

The following tables outline the methods and processes the Industry typically utilizes for implementation of an initial overlay when the NPA will be transitioning from 7-digit to 10-digit local dialing; however, the methods and processes outlined below may be modified by agreement of the Industry members during the actual implementation meetings for the new overlay NPA of the 423 NPA:

Customer Education Milestones:

Action		**Responsibility**
1	Issue first customer notification (e.g., bill messages, bill inserts, direct mail, text messaging, email)	All Service Providers
2	Issue initial press release	Commission and Service Providers that have the ability (If necessary)
3	Send Special letters to Alarm and Safety, Directory Publishers, Pay Telephone & PSAPs	Co-chairs of industry committee
4	Update social media with information regarding new overlay NPA.	All Service Providers (optional)
5	Update websites with information regarding new overlay NPA	All Service Providers
6	Develop language for use in Directories to alert the consumers of 10-digit local dialing and the new area code	Service Providers that publish directories
	After Permissive 7 and 10-Digit Dialing Begins	
7	Issue second customer notification (e.g., bill messages, bill inserts, direct mail, text messaging, email)	All Service Providers
8	Send reminder Special letters to Alarm and Safety, Directory Publishers, Pay Telephone & PSAPs	Co-chairs of industry committee
9	Update social media with information regarding new overlay NPA.	All Service Providers (optional)

[9] The Industry requires a total of 19 months to complete a 13-month implementation schedule at least 6 months prior to the exhaust of the 423 NPA.

Action		Responsibility
10	Update websites with information regarding new overlay NPA	All Service Providers
11	Issue second mandatory press release just prior to the new overlay NPA's effective date	Commission and Service Providers that have the ability (If necessary)

Technical Milestones:

Action		Responsibility
1	Obtain industry test code from NANPA and activate the test number	One Service Provider volunteer
2	Open the test code in carriers' network	All Service Providers
3	LERG updates in BIRRDS or via AOCN. (i.e. routing changes, rehomes, change from 7 to 10 terminating digits at end office and at access tandem, etc.)	All Service Providers
4	Ensure Highway boxes are programmed with 10-digit dialing	Co-chairs of industry committee
5	Network ready for Permissive Dialing	All Service Providers
6	Create Permissive Dialing Industry Contact List	Co-chairs of industry committee
	Permissive Dialing Begins	
7	Establish NPA Specific type of Trunks	All Service Providers (if needed)
8	Completion of 10-digit signaling transition between carriers' networks	All Service Providers
9	Require email from service providers when the 10-digit signaling transition between carriers' networks has been completed	All Service Providers
10	Update on all speed calling, call forwarding numbers and voicemail options in embedded database to reflect 10-digit dialing	All Service Providers
11	Recorded announcements in Place and Tested	All Service Providers
	E911 Work Plan	
12	Confirm new Emergency Service Number (ESN)/Numbering Plan Digit (NPD) has been established for the new NPA	E911 Providers
13	Ensure SRDB table has new NPA built	E911 Providers
14	Notify PSAPs, PSALI customers and	E911 Providers

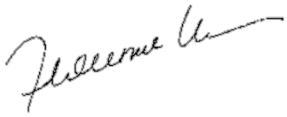
Action		Responsibility
	County Coordinators	
15	Review and Submit CLEC Trunk Order Requests to local provider if needed	All Service Providers (if needed)
16	Update PSAP equipment to recognize new NPA	PSAPs
17	Trunk Orders Complete	All Service Providers (if needed)
18	Build E911 Network/Tandem Translations	E911 Providers
19	Verify if all PSAP work has been completed	E911 Providers
20	Activate E911 Network/Tandem Translations	E911 Providers

IV. Conclusion

The Industry requests that the Commission issue an order in response to the Petition approving an all-services distributed overlay relief plan and the recommended implementation schedule for the 423 NPA without a hearing. To the extent possible, the Industry requests that the Commission forego in-person meetings and hearings in favor of written comments and reply comments. Once the Commission has granted this Petition, the Industry will implement an all-services distributed overlay over the 423 NPA in accordance with the

implementation schedule set forth above. As such, the Industry respectfully requests that the Commission issue a final decision on this Petition no later than September 30, 2023.

Respectfully submitted,



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November 18, 2022

EXHIBIT A

September 12, 2022

To: All 423 NPA Code Holders and Interested Industry Members (Tennessee)

Subject: Tennessee 423 NPA Initial Planning Document Review Meeting

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The North American Numbering Plan Administrator ("NANPA") is responsible for initiating area code relief in areas within the United States in sufficient time to prevent exhaust of numbering resources before relief is implemented in accordance with the NPA Code Relief Planning and Notification Guidelines (ATIS-0300061). The April 2022 Numbering Resource Utilization/Forecast (NRUF) and NPA Exhaust Analysis ("April 2022 NRUF Report"), published by NANPA, indicated that the 423 NPA would exhaust during the third quarter of 2025. Relief planning for the 423 NPA is to start in the third quarter of 2022.

Accordingly, on October 11, 2022, NANPA will convene an industry NPA relief planning meeting via web conference to review the initial planning document ("IPD") and develop a recommended relief plan for the 423 NPA. The objective of this meeting is to reach consensus among members of the Tennessee Telecommunications Industry ("Industry") on a single relief plan for the 423 NPA. The resulting relief plan will be filed in a petition with the Tennessee Public Utility Commission ("Commission") for their consideration and approval. The industry-recognized consensus process developed by the Alliance for Telecommunications Industry Solutions ("ATIS") will be applied in the decision-making efforts.

Included with this meeting notice is the meeting agenda, consensus process, 423 NPA CO code and thousands-block status reports, relief planning meeting aids, service provider CO code assignments by OCN, rate centers in the 423 NPA, and associated maps.

Because the impacts of NPA relief are so significant, NANPA strongly urges your participation on October 11, 2022. This may be the only Industry meeting before a decision is reached on a recommended relief plan that will be submitted to the Commission for approval. The details of the relief planning meeting are as follows:

Date: Tuesday, October 11, 2022
Time: 2:00 pm, ET; 1:00 pm CT; 12:00 pm MT; 11:00 am PT

Join Zoom Meeting
https://somos.zoom.us/j/81258021028?pwd=MnNWUDN3WDRrWmJJbG1xa3FIUWlLUT09&from=addon

Meeting ID: 812 5802 1028
Password: 434544

One tap mobile
8778535257,,81258021028# US Toll-free
8884754499,,81258021028# US Toll-free

Dial by your location
877 853 5257 US Toll-free
888 475 4499 US Toll-free
Meeting ID: 812 5802 1028

Please feel free to distribute this notice to others in the Industry that you feel should attend this important NPA relief planning meeting. If you receive this notice from someone else and would like to receive additional information in the future about the 423 NPA relief project, please sign up for NANPA's NAS-NNS by going to www.nationalnanpa.com, then selecting NAS Login and then selecting New Registration and following the sign-up process.

If you have any questions, please contact me at (925) 420-0130 or via email at cmccabe@nanpa.com.

Sincerely,

Cecilia McCabe
NPA Relief Planner
NANPA

cc: John Hutton – Tennessee Public Utility Commission

TENNESSEE 423 NPA
INITIAL RELIEF PLANNING MEETING
VIA WEB CONFERENCE

October 11, 2022 - 1:00 PM (CT)

AGENDA

Welcome, Introductions, Consensus Definition / Statements for the record

NANPA's Role and Responsibilities

Review 423 NPA Background and History

Review NPA Status

Review Initial Planning Document and Proposed Alternatives

Review Relief Alternative Pros and Cons

Consensus on Relief Alternative

Consensus on Implementation Intervals

Consensus on Customer Education and Technical Milestones

Consensus on Approval & Filing

Statements for the Record

Set Date to Approve Minutes

Open Discussions

Adjourn

7 RESOLUTION PROCESS

7.1 Consensus

Consensus is the method used by the ATIS Forums to reach resolution of Issues, unless specifically otherwise provided for in these Operating Procedures or in **Appendix A**. Consensus is established when substantial agreement has been reached among those participating in the Issue at hand. Substantial agreement means more than a simple majority, but not necessarily unanimous agreement.

Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution. Observers shall have the opportunity to express their views and to influence the opinions of Voting Members. However, the opinions of Observers are not considered by the leadership in determining whether consensus has been achieved. Under some circumstances, consensus is achieved when the minority no longer wishes to articulate its objection. In other cases, the opinions of the minority should be recorded with the report of the substantial agreement, or consensus, of the majority.

When there are questions or disputes regarding consensus, leaders or participants should ask an objecting participant(s) to state the rationale for the objection and provide an opportunity for full discussion aimed at achieving full understanding and consideration of the objection.

A participant's silence is perceived as agreement by the Forum and its leadership. If participants do not agree, they should be encouraged to speak up and voice their opinion.

5 NPA Relief Planning Process

The NRUF and other available resources are used to identify projected NPA exhaust. NANPA shall prepare relief options for each NPA projected to exhaust within thirty-six months.

Considerations in the NPA Relief Planning Process include:

a) The relief options shall cover a period of at least 15 years beyond the predicted date of exhaust, and may cover more than one relief activity, if necessary, during the time frame. If the only viable relief option is less than 15 years from the predicted date of exhaust, then NANPA shall provide this relief option.

b) The relief plan may need to be changed over time to reflect changes that take place such as demand for NXX codes or other factors (e.g., local competition, LNP, expansion of thousands-block number pooling, etc.). The semi-annual NRUF analysis shall be used as one of the tools in updating the options.

c) Affected Parties are invited to provide input into development of the plan. The appropriate regulatory authority shall be made aware of the plan and approve the plan, if necessary.

d) The choice of relief methods (e.g., split, overlay, boundary realignment) shall be specified in the plan, along with boundaries if a split or boundary realignment is chosen. The options under consideration should include the choice of relief method, boundary information, the estimated relief period and other assumptions such as projected code assignment rates, etc. The lives of relief alternatives are based on the projected rate of assignment of codes as described in Section 5.1, and these alternatives' lives commence at the point in time of projected exhaust of the NPA. See Appendix D for a summary of the relief model.

e) For any relief activity proposed in the plan that requires number changes, it is recommended that customers who undergo number changes shall not be required to change again for a period of 15 years.

f) The use of protected codes (NXXs) is an assignment practice whereby a central office code assigned in one NPA is not available for assignment in an adjacent NPA in order to permit 7 digit dialing across the NPA boundary (where 10-digit local dialing would otherwise be required). The use of protected codes (NXXs), which permits 7-digit dialing across NPA boundaries, should be eliminated as part of the NPA code relief planning process unless the appropriate regulatory authority directs otherwise.[1]

g) The use of protected routes, which also permits 7-digit dialing across NPA boundaries, shall continue unless otherwise directed by the appropriate regulatory authority.[2] Where it is suspected that protected routes and 7-digit dialing cross-boundary exists, NANPA shall continue the code assignment practices that permit the continued protection of these routes until such time as these routes are eliminated by the service provider(s) or the appropriate regulatory authority. Any changes in rate centers or NXXs that would increase or decrease protected routes shall be reported to NANPA by the service provider initiating the change. The notification shall include the tariff, the rate centers and NXX codes involved and the direction of the 7-digit local calling. This notification is important since such changes may have code consumption implications on multiple NPAs. It should be understood that continuing this practice can result in a less efficient use of resources and shorten the forecasted lives of the NPA currently under relief planning as well as the adjacent NPAs; i.e., two-way 7-digit dialing across NPAs might involve several rate centers and many NXX codes in multiple NPAs. Additionally, the relief planning model used by NANPA cannot take into account the protected routes when projecting the lives of new NPA relief alternatives

[1] Per letter dated 10-29-97 from NANC Chairman to INC Moderator.

[2] In the case of an NPA overlay, cross NPA boundary calls originating from the overlay must be dialed on a 10-digit basis.

because the model assumptions are based on the premise that all NXXs available for assignment can be assigned to all rate centers. A high number of protected routes may impact the availability of NXX codes in specific rate centers (usually high-demand rate centers), which directly impacts the exhaust timeframe of an area code. As a result, NPA relief planning may start prematurely or may not permit for the standard intervals for relief implementation.

In the long term, the plan shall result in the most effective use possible of all codes serving a given area. Ideally, all of the codes in a given area shall exhaust about the same time in the case of splits. In practice, this may not be possible, but severe imbalances, for example, a difference in NPA lifetimes of more than 10 years, shall be avoided.

5.1 Determine the Expected NPA Exhaust Period

Through the use of historical growth data as well as expected changes (e.g., expansion of thousands-block pooling) to NXX demands in the future, NANPA should project to the best of its ability the expected quarter of exhaust of the NPA. Every practical source of data, including the NRUF survey results, should be used as an aid in this projection. Projection results should be reported to the industry as soon as the NRUF or other analysis results are available. Once the earliest likely exhaust date is determined, NANPA should suggest a mandatory dialing date six (6) months prior to the exhaust date if the recommended relief is an overlay. If the recommended relief is a geographic split, the end of the recorded announcement period should be at least six (6) months prior to the earliest likely exhaust date.

- The NPA relief planning process shall begin immediately if NANPA finds it necessary to declare an NPA to be in Jeopardy before relief planning for that NPA has begun. NANPA will distribute the Initial Planning Document to the industry within four (4) weeks of the declaration of jeopardy and will hold an industry NPA Relief Planning meeting no more than eight (8) weeks after the Jeopardy announcement.
- It should be noted that an exhaust date based on a controlled allocation (rationing) is an artificial exhaust projection based on the monthly rationing amount determined by the industry and not reflective of the true need for relief.
- In cases where the NPA is in jeopardy and CO codes are rationed, two exhaust dates will be reported: (1) the exhaust date at jeopardy declaration, and (2) the exhaust date with controlled allocation.

5.2 Identify the Alternative Relief Methods Available

Within the affected NPA, the NANPA should next identify possible NPA relief alternatives and methods from among those identified in Section 6.

5.3 Define the Attributes of Each Alternative or Method

For each of the alternative relief methods identified in 5.2, NANPA should, with assistance from the industry participants, quantify impacts to subscribers, networks and service providers, and industry concerns using Appendix B. Specific calculations such as the relative lengths of the relief periods, and local dialing plans using 7-digits or 10-digits should be made at this point. Examples of attributes are shown in Appendix E.

5.4 Notify Industry of Pending NPA Exhaust and Results of Initial Relief Planning

The next step in the NPA Relief Planning Process is to incorporate the results of the steps outlined in 5.1 through 5.3 into an Initial Planning Document (IPD) for distribution to the Industry in the affected NPA. The IPD should be attached to a notification to Industry members of future meeting schedules to be held for the purpose of discussing the alternative relief methods, with the objective of reaching consensus on the method to be adopted. The IPD should be provided at least four (4) weeks prior to the first industry meeting to allow individual industry members to fully analyze the alternatives and identify impacts to their respective subscribers and networks. Industry members also should investigate any technical and operational impacts, such as required switch replacements and support system modifications.

5.5 Conduct Industry Meetings/Conference Calls with the Goal of Reaching Industry Consensus on a Relief Plan

Meetings and/or conference calls should be held with all interested members of the industry within the affected NPA. Although most of these meetings are held via conference call, a face-to-face meeting may be scheduled if necessary. If a face-to-face meeting notice is issued, NANPA will state that an SP requesting a conference bridge must notify the meeting host to make arrangements (e.g., equipment, bridge number, cost of call). In order to keep the face-to-face meeting manageable, participants on the bridge shall not be accorded special consideration[3]. NANPA shall moderate these meetings or conference calls and be fully prepared to answer questions regarding the alternatives. During the meetings/conference calls, new alternatives may be proposed and shall be considered in these discussions. Inasmuch as the objective of these meetings/conference calls is to reach industry consensus, subsequent meetings/conference calls shall be held as required until consensus is reached, or until NANPA determines consensus cannot be reached.

6 Alternative Relief Methods

All of the currently identified code relief alternatives are described below, but depending on the particular NPA and the distribution of assigned NXXs within it, some alternatives may not be compliant with the criteria in Section 5.0 above (e.g., in an NPA with a high concentration of assigned NXXs in one or only a few rate centers, the overlay may be the only possible relief method). Possible impacts of these alternatives are found in Appendices B, E and G.

6.1 NPA Split Method

By this method, the exhausting NPA is split into two or more geographic areas and a new NPA code is assigned to one of the areas formed by the split. This method generally acknowledges jurisdictional or natural boundaries but, for technical reasons and number optimization considerations, the actual boundaries must conform to existing rate center boundaries. Number changes are mandatory for customers assigned numbers from NXX codes that are moved to the new NPA.

[3] Caveat: those on the bridge may NOT ask for comments to be repeated or for additional explanations to be given because they cannot see what's happening in the room. The use of a bridge must not slow down the meeting.

6.2 Boundary Realignment Method

In an NPA boundary realignment, the NPA requiring relief is adjacent to an NPA, within the same state or province, which has spare NXX code capacity. A boundary shift/realignment 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, and number changes are mandatory for customers assigned numbers from NXX codes that are moved to the adjacent NPA. This method applies to multi-NPA states or provinces only. Boundary realignments must follow rate center boundaries. This method is viewed as an interim measure because it tends to provide shorter-term relief than when providing a new NPA code.

6.3 All-Services Distributed Overlay Method[4]

An all-services distributed overlay occurs when more than one NPA code serves the same geographic area. In an NPA overlay, code relief is generally provided by opening a new NPA code covering the same geographic area as the NPA(s) requiring relief. NXX codes from this new NPA are assigned on a carrier-neutral basis, i.e., first come, first served. With the overlay method, the FCC requires mandatory 10-digit local dialing between and within the old and new NPAs.[5] Some states require 1 + 10-digit local dialing and some require 10-digit local dialing and allow 1 + 10-digit local dialing at the SP's discretion.

The all-services distributed overlay method eliminates the need for customer number changes as required under the split and boundary realignment methods. In areas where an overlay is already in place, a subsequent overlay eliminates the need for a permissive dialing period as part of implementation. In areas where mandatory 10-digit local dialing is already in place, an overlay eliminates the need for a permissive dialing period as part of implementation. Other potential implementation strategies have been identified for an all-services overlay, but they tend to provide shorter-term relief and/or may require additional technical work for some SPs. They are listed below:

7 Other Relief Planning Considerations

This section describes miscellaneous considerations that should be included during the NPA relief planning process. It is not possible to identify every potential issue which may arise when planning relief for specific NPAs; each state or province, each metropolitan area and each industry segment will have unique characteristics which could introduce concerns not included here. The following items are examples of issues which, based on past industry experiences, could create impediments to a successful and efficient implementation effort.

7.1 Regulatory Involvement

Regulatory Involvement - Involvement of the appropriate regulatory authority staff during NPA code relief planning may expedite the process of addressing public policy concerns throughout the process.

[4] The LNPA Working Group Best Practice 30 supports the all-services distributed overlay as the preferred form of area code relief, and was endorsed by the North American Numbering Council (NANC) on September 18, 2013. See http://www.nanc-chair.org/docs/documents.html.

[5] 47 CFR §52.19 (c) (3) (ii).

7.2 Timing and Schedules

Issues related to timing and scheduling will vary with the type of relief method to be implemented as well as the level of difficulty of the required changes. In general, the relief implementation should be completed at least six (6) months prior to the projected exhaust of the NPA, but in extraordinary situations, at least three (3) months before the existing NPA would exhaust under the highest growth projections. For overlays, relief is completed when mandatory 10-digit local dialing has been implemented and the new NPA becomes effective.

Annex B

Issues To Be Considered During NPA Relief Planning

Following are a list of issues to be considered in weighing the advantages of the relief alternatives.

Subscribers

- quantity of subscribers who will have to undergo number changes
- impact on customer premise equipment (CPE), e.g., reprogramming of wireless devices, automatic dialers, alarm systems, PBXs, etc.
- public reaction to and political involvement in boundary decisions
- impact on market identity/recognition, geographic identity, public familiarity
- public costs such as reprinting of stationery, business cards, advertising, and CPE and other database reprogramming.

Network and Service Providers

- hardware and software upgrades to switching systems
- modification to or replacement of some operations support systems
- modification to operator services switches and/or systems
- directory assistance impacts
- 911 system impacts
- directory changes
- public notification/education requirements
- changes to existing network routing and translations
- impact of permissive dialing period
- length of planning period
- impact on dialing plan
- experience with relief method/implementation procedure
- interaction with appropriate regulatory bodies
- tariff impacts
- internal networks
- LNP compliance impacts

Industry Concerns

- length of relief period

- NPA code utilization
- Number Pooling impact on length of relief period (where applicable)

Annex E

General Attributes of the Most Common Relief Alternatives

Geographic Splits	All-Services Overlays
• Splits maintain a single area code for each geographic area. This may minimize confusion for customers outside the area.	• With an overlay there will be more than one area code in a geographic area.
• Splits require an area code change for approximately one-half of customers in a two-way split, and two-thirds of customers in a three-way split.	• An overlay will not require existing customers to change their area code.
• Geographic splits permit 7-digit dialing within an area code.	• An overlay requires customers to dial 10 digits (or 1 + 10 digits) for all calls.
• Stationery, business cards and advertising, as well as non-telephony databases, containing a ten-digit phone number will need to be revised by customers receiving the new area code.	• There is no need to revise stationery, business cards and advertising, as well as non-telephony databases, unless they contain only seven digit phone numbers.
• Future splits will reduce the geographic size of the area code.	• An overlay will end further shrinking of the geographic size of the area code because subsequent relief will likely be another overlay.

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Relief Planning Meeting Aid
Pros and Cons for Relief Alternatives

This meeting aid is a compilation of industry developed pros and cons from NPA relief planning meetings and is prepared to assist the participants in evaluating the attributes of the relief alternatives being considered.

Overlay Pros and Cons:

Pros:

Alternative #					
					1 All existing customers would retain the 423 area code and would not have to change their telephone number.
					2 Does not discriminate against customers on different sides of a boundary line as does a geographic split.
					3 Less customer confusion and easier education process.
					4 Less financial impact on business customers because there is no need to change signage, advertising and stationery unless they currently only show 7-digit numbers.
					5 Residential customers do not have to update personal printed material such as checks and websites, etc. unless they currently show 7-digit numbers.
					6 No need for synchronization of old and new NPAs in NPAC databases as would be required for an NPA split.
					7 Minimizes call routing issues, especially with ported numbers.
					8 Easier for service providers to implement from a translations, billing and service order system perspective.
					9 Minimal data entries handled in national databases such as BIRRDS, LERG and the Terminating Point Master Table.
					10 The Commission would not have to decide which side retains the 423 NPA as would be required for an NPA split.
					11 Does not split cities, counties or communities of interest into different area codes.
					12 Does not impact some wireless carriers that have to reprogram handsets manually as would be required for an NPA split.
					13 No technical impacts to number portability, text messaging or multimedia messaging.
					14 An all-services distributed overlay is simpler to implement from both a technical and customer education perspective and prevents having to educate customers twice as would be required for a split.
					15 Helps move customers toward nationwide 10-digit dialing.
					16 Transitioning to 10-digit local dialing will enable central office codes protected for 7-digit routes to be released for assignment.

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Relief Planning Meeting Aid
Pros and Cons for Relief Alternatives

Overlay Pros and Cons:

Cons:

Alternative #					
					1 Consistent with FCC regulations, the relief plan would require 10-digit local dialing for all local calls within and between the 423 NPA and the new overlay NPA.
					2 Financial costs to add NPA to signage and printed material where only 7-digit number is shown.
					3 Customers would have to reprogram any equipment currently programmed to dial 7-digits to dial 10-digits (e.g., alarm systems, PSAP dial systems, security gates, PBXs, life safety systems, computer modems, voicemail systems, fax machines, etc.).
					4 Loss of geographic identity with an overlay if assigned a telephone number in the new overlay NPA.
					5 Confusion due to differences in state dialing requirements between local and toll calling; customers dialing 10 digit vs 1+10-digit for local calls.

NPA Split Pros and Cons

Pros:

Alternative #					
					1 Maintains seven-digit dialing for local calls within the same NPA.
					2 Approximately half of the customers would not experience a change if they keep the 423 NPA.
					3 Projected lives are balanced.
					4 The projected lives are slightly more balanced than Alternative #.
					5 This alternative allows _____ to maintain operations on one side of the split line.
					6 Maintains geographic identity of the 423 area code.
					7 Keeps the rate centers on both sides of the split lines intact.

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Relief Planning Meeting Aid
Pros and Cons for Relief Alternatives

NPA Split Pros and Cons:

Cons:

Alternative #					
					1 Requires approximately half of 423 NPA customers to change their area code.
					2 Financial impact to half of businesses to incur costs to change their advertising for telephone #'s and stationery if currently showing 10-digit telephone numbers.
					3 Creates widespread customer 10-digit dialing confusion across the new NPA boundary.
					4 All 423 NPA customers previously went through a split 21 years ago and half will have to change their area code again.
					5 Difficult Commission decision on which side retains the 423 NPA.
					6 Longer time period needed for service providers to implement this type of relief.
					7 Customers whose numbers change must contact friends, family and business associates with the telephone number changes.
					8 More complicated and costly to implement for service providers in their billing, translations and database systems.
					9 Negative impacts to E911, industry and alarm system databases that must be updated with customers' new telephone numbers.
					10 Negative impact to directories and directory assistance databases that must be updated with customers' new telephone numbers.
					11 Timing of publication of telephone directories must be coordinated with the implementation of the new NPA.
					12 Split has a larger impact to greater number of existing customers due to change in existing customers' telephone numbers.
					13 Split requires significant challenges to service provider's operational support systems and network elements.
					14 Splits cause customer confusion with caller ID during implementation.
					15 Older wireless handsets without over-the-air programming must be manually programmed for those numbers that are changing.
					16 Splits require the 423 NPA and new NPA to be synchronized with the NPAC database to ensure accurate call routing and facilitation of port requests.
					17 Splits require a more challenging customer education process for service providers that have customers on both sides of the split line.
					18 Splits require the 800/SMS database to be updated.

					19	Splits reduce the geographic area served by one area code.
					20	Splits the city(s), counties or legislative districts into different area codes.
					21	Splits communities of interest.
					22	For some wireless carriers, text messaging and multimedia service can only handle one version of the 10-digit number so they will fail if they are sent using the 423 area code during permissive dialing.
					23	The last split implemented was in 2007. There is additional complexity to implement a split now due to changing technologies. Any lessons learned during the implementation of the last split may now be obsolete.
					24	This split disrupts the SP's host-remote switch arrangement.
					25	Splits _____operating territory between two NPAs.
					26	_____EAS calling is heavily disrupted.

This meeting aid has examples of industry developed dialing plans and implementation schedules to assist the participants in their decision of the relief alternatives being considered.

OVERLAY DIALING PLAN MEETING AND IMPLEMENTATION SCHEDULE

Type of Call	Call Terminating in	Dialing Plan
Local Call	Home NPA (HNPA) or Foreign NPA (FNPA) (including Extended Area Service (EAS) calls)	10 digits (NPA-NXX-XXXX)*
Toll Call	HNPA or FNPA	1+10 digits (1+NPA-NXX-XXXX)
Operator Services Credit card, collect, third party	HNPA or FNPA	0+10 digits (0+NPA-NXX-XXXX)

*1+10 digit permissible at each service provider's discretion

EVENT	TIMEFRAME
Network Preparation Period	6 months
Permissive 10-Digit Dialing and Customer Education Period *(Calls within existing NPA can be dialed using 7 or 10 digits)* *Mandatory* dialing period begins at the end of the Permissive Dialing Period	6 months
First Code Activation after end of Permissive dialing period *(Effective date for codes from the new NPA)* *	1 month (after Mandatory Dialing Period)
Total Implementation Interval	13 months

**CO codes in the new NPA will not be assigned until all available codes in the 423 NPA have been exhausted.*

OVERLAY DIALING PLAN MEETING AND IMPLEMENTATION SCHEDULE

(10-digit dialing in place)

EVENT	TIMEFRAME
Customer Education and Network Preparation Period	8 Months
Earliest Activation of CO Codes in the new NPA*	1 Month after the completion of customer education and network preparation period No later than ___(insert QTR)

**CO codes in the new NPA will not be assigned until all available codes in the Existing NPA have been exhausted.*

OVERLAY DIALING PLAN MEETING AND IMPLEMENTATION SCHEDULE

(10-digit dialing in place)

EVENT	TIMEFRAME
Customer Education and Network Preparation Period Begins	Implementation Start Date selected by the Industry
Customer Education and Network Preparation Period Ends	9 months after the Implementation Start Date selected by the Industry
Earliest Activation of CO Codes in the new NPA*	9 months after the Implementation Start Date selected by the Industry No later than ___(insert QTR)

**CO codes in the new NPA will not be assigned until all available codes in the existing NPA have been exhausted.*

GEOGRAPHIC SPLIT DIALING PLAN AND IMPLEMENTATION SCHEDULE

Type of Call	Call Terminating in	Dialing Plan
Local call	Home NPA (HNPA)	7 digits (NXX-XXXX)
	Foreign NPA (FNPA)	10 digits (NPA-NXX-XXXX)
Toll call	HNPA or FNPA	1+10 digits (1+NPA-NXX-XXXX)
Operator Services Credit card, collect, third party	HNPA or FNPA	0+10 digits (0+NPA-NXX-XXXX)

EVENT	TIMEFRAME
Network Preparation Period	6 months
Permissive dialing to the old or new NPA and Customer Education Period *(Calls within the home NPA can be dialed using 7 or 10 digits. Calls using the old or new NPA to those changing to the new NPA are acceptable)* Mandatory dialing period begins at the end of the Permissive Dialing Period	6 months
Recorded Announcement Period	3 months
First Code Activation *(Effective date for codes from the new NPA)*	End of Recording Period
Total Implementation Interval	15 months

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Relief Planning Meeting Aid
Customer Education and Technical Milestones

This meeting aid is a compilation of industry developed customer education and technical milestones. This list is prepared to assist the participants in choosing the milestones that will be applicable to the specific NPA relief planning project.

Customer Education Milestones:

				Responsibility
		1	Issue first customer notification (e.g., bill messages, bill inserts, direct mail, text messaging, email)	
		2	Issue initial press release	
		3	Send Special letters to PSAPs and Directory Publishers	
		4	Update social media with information regarding new overlay NPA.	
		5	Update websites with information regarding new overlay NPA	
		6	Develop language for use in Directories to alert the consumers of 10-digit local dialing and the new area code	
			After Permissive 7 and 10-Digit Dialing Begins	
		7	Issue second customer notification (e.g., bill messages, bill inserts, direct mail, text messaging, email)	
		8	Send reminder Special letters to Alarm and Safety, Directory Publishers, Pay Telephone & PSAPs	
		9	Update social media with information regarding new overlay NPA.	
		10	Update websites with information regarding new overlay NPA	
		11	Issue second mandatory press release just prior to the new overlay NPA's effective date	

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Relief Planning Meeting Aid
Customer Education and Technical Milestones

Technical Milestones:

				Responsibility
		1	Obtain industry test code from NANPA and activate the test number	
		2	Open the test code in carriers' network	
		3	LERG updates in BIRRDS or via AOCN. (i.e. routing changes, rehomes, change from 7 to 10 terminating digits at end office and at access tandem, etc	
		4	Ensure Highway boxes are programmed with 10-digit dialing	
		5	Network ready for Permissive Dialing	
		6	Create Permissive Dialing Industry Contact List	
			Permissive Dialing Begins	
		7	Establish NPA Specific type of Trunks	
		8	Completion of 10-digit signaling transition between carriers' networks	
		9	Require email from service providers when the 10-digit signaling transition between carriers' networks has been completed	
		10	Update on all speed calling, call forwarding numbers and voicemail options in embedded database to reflect 10-digit dialing	
		11	Recorded announcements in Place and Tested	
			E911 Work Plan	
		12	Confirm new Emergency Service Number (ESN)/Numbering Plan Digit (NPD) has been established for the new NPA	

		13 Ensure SRDB table has new NPA built	
		14 Notify PSAPs, PSALI customers and County Coordinators	
		15 Review and Submit CLEC Trunk Order Requests to local provider if needed	
		16 Update PSAP equipment to recognize new NPA	
		17 Trunk Orders Complete	
		18 Build E911 Network/Tandem Translations	
		19 Verify if all PSAP work has been completed	
		20 Activate E911 Network/Tandem Translations	

TN 423 Rate Center List

NPA	Abbreviated Rate Center	Rate Center Full Name
423	APISON	APISON
423	ATHENS	ATHENS
423	BAILEYTON	BAILEYTON
423	BALL PLAY	BALL PLAY
423	BENTON	BENTON
423	BLOUNTVL	BLOUNTVILLE
423	BLUFF CITY	BLUFF CITY
423	BRISTOL	BRISTOL
423	BULLS GAP	BULLS GAP
423	BUTLER	BUTLER
423	CHARLESTON	CHARLESTON
423	CHATTNOOGA	CHATTANOOGA
423	CHURCHHILL	CHURCH HILL
423	CLEVELAND	CLEVELAND
423	CLINCHPORT	CLINCHPORT
423	COKERCREEK	COKER CREEK
423	COLLEGEDL	COLLEGEDALE
423	COLLEGESTA	COLLEGE STATION
423	COPPERBSIN	COPPER BASIN
423	CUMBERLDGP	CUMBERLAND GAP
423	DAYTON	DAYTON
423	DECATUR	DECATUR
423	DEER LODGE	DEER LODGE
423	DUNLAP	DUNLAP
423	ELIZABTHTN	ELIZABETHTON
423	ENGLEWOOD	ENGLEWOOD
423	ERWIN	ERWIN
423	ETOWAH	ETOWAH
423	FALLBRANCH	FALL BRANCH

TN 423 Rate Center List

NPA	Abbreviated Rate Center	Rate Center Full Name
423	FLCRKFALLS	FALL CREEK FALLS
423	FORK RIDGE	FORK RIDGE
423	GEORGETOWN	GEORGETOWN
423	GREENEVL	GREENEVILLE
423	HAMPTON	HAMPTON
423	HUNTSVILLE	HUNTSVILLE
423	JASPER	JASPER
423	JELLICO	JELLICO
423	JOHNSON CY	JOHNSON CITY
423	JONESBORO	JONESBORO
423	KINGSPORT	KINGSPORT
423	LAFOLLETTE	LA FOLLETTE
423	LIMESTONE	LIMESTONE
423	MADISONVL	MADISONVILLE
423	MIDWAY	MIDWAY (WASHINGTON)
423	MIDWAY SUL	MIDWAY (SULIVAN)
423	MORRISTOWN	MORRISTOWN
423	MOSHEIM	MOSHEIM
423	MOUNTAINCY	MOUNTAIN CITY
423	NEWPORT	NEWPORT
423	NEWTAZWELL	NEW TAZEWELL
423	NINE MILE	NINE MILE
423	NIOTA	NIOTA
423	OAKDALE	OAKDALE
423	ONEIDA	ONEIDA
423	OOLTEWAH	OOLTEWAH
423	PETROS	PETROS
423	PIKEVILLE	PIKEVILLE
423	RICEVILLE	RICEVILLE

TN 423 Rate Center List

NPA	Abbreviated Rate Center	Rate Center Full Name
423	ROAN MT	ROAN MOUNTAIN
423	ROBBINS	ROBBINS
423	ROGERSVL	ROGERSVILLE
423	SHADY VLY	SHADY VALLEY
423	SNEEDVILLE	SNEEDVILLE
423	SO PITTSBG	SOUTH PITTSBURG
423	SODDYDAISY	SODDY DAISY
423	SPRINGCITY	SPRING CITY
423	STONEY CRK	STONEY CREEK
423	SULIVNGDNS	SULLIVAN GARDENS
423	SUNBRIGHT	SUNBRIGHT
423	SURGOINSVL	SURGOINSVILLE
423	SWEETWATER	SWEETWATER
423	TELLICO PL	TELLICO PLAINS
423	VONORE	VONORE
423	WARTBURG	WARTBURG
423	WHITWELL	WHITWELL

TN 423 NPA Code Holder List

Company	OCN	CountOfNXX
AT&T - LOCAL	7421	4
AT&T CORP.	516C	4
BANDWIDTH.COM CLEC, LLC - TN	124F	23
BELLSOUTH TELECOMM INC DBA SOUTH CENTRAL BELL TEL	9419	119
BLEDSOE TEL. COOP.	0554	5
BRISTOL TENNESSEE ESSENTIAL SERVICES - TN	895D	3
BUSINESS TELECOM, INC. DBA BTI - TN	4265	1
CELLCO PARTNERSHIP DBA VERIZON WIRELESS - TN	6673	78
CENTURYLINK COMMUNICATIONS LLC - TN	2757	3
CENTURYLINK COMMUNICATIONS LLC - TN	8072	1
CENTURYLINK COMMUNICATIONS, LLC	508J	4
CENTURYTEL OF CLAIRBORNE DBA CENTURYLINK-CLAIBORNE	0557	3
CENTURYTEL OOLTEWAH-COLLEGEDALE DBA CENTURYLINK	0574	3
CHARTER FIBERLINK-TENNESSEE, LLC - TN	704C	7
COMCAST IP PHONE, LLC	318J	14
COMMIO, LLC	939H	2
CSC WIRELESS, LLC	425J	2
DELTACOM, INC. - TN	4622	8
DISH WIRELESS, LLC	490J	2
ELECTRIC POWER BOARD OF CHATTANOOGA	4645	5
ETC COMMUNICATIONS, L.L.C. - TN	566D	1
FRACTEL, LLC	965H	5
FUSION CLOUD SERVICES, LLC	3290	1
FUSION CLOUD SERVICES, LLC	476C	1
HIGHLAND TEL. COOP, INC.	0565	10
IP HORIZON LLC	515J	2
LEVEL 3 COMMUNICATIONS, LLC - TN	4806	32
MCIMETRO ACCESS TRANSMISSION SERVICES LLC - TN	7278	4
METROPCS, INC.	5562	9
MOUNTAINET TELEPHONE COMPANY - VA	3185	2
MRSTWN UT COMM DBA MRSTWN UT SYS FIBERNET - TN	430H	1
NA COMMUNICATIONS, INC.	8945	5
NEW CINGULAR WIRELESS PCS, LLC - GA	6214	69
NUSO, LLC	478J	2
NUSO, LLC	551G	3
ONVOY SPECTRUM, LLC	624H	2
ONVOY, LLC - TN	525E	28
PEACE COMMUNICATIONS, LLC - TN	967F	1
PEERLESS NETWORK OF TENNESSEE, LLC - TN	276F	2
POWERTEL ATLANTA LICENSES, INC.	7473	8

TN 423 NPA Code Holder List

POWERTEL NASHVILLE LICENSES, INC.	7476	8
PRO PAGE PARTNERS, LLC	6880	1
RADIANTIQ LLC	566J	7
RCLEC, INC.	156J	1
SCOTT COUNTY TEL. COOP., INC.	0248	1
SKYBEST COMMUNICATIONS, INC. - TN	081J	2
SKYE TELECOM LLC DBA SKYETEL	622J	2
SKYLINE TEL. MEMBERSHIP CORP.	0501	1
SPRINT SPECTRUM, L.P.	6664	19
SUNCOM DBA T-MOBILE USA	8645	23
TELEPORT COMMUNICATIONS AMERICA, LLC - TN	114F	9
TELESCAN, INC. - TN	239E	1
TELLICO TEL. CO., INC.	0578	9
TELNYX LLC	073H	7
TON80 COMMUNICATIONS, LLC	516J	5
TWILIO INTERNATIONAL, INC.	506J	2
TWIN LAKES COMMUNICATIONS, INC. - TN	204G	3
UNITED STATES CELLULAR - TN	6278	12
UNITED TELEPHONE-SOUTHEAST-TN DBA CENTURYLINK - TN	4510	83
US LEC OF TENNESSEE, INC.	8356	20
USA MOBILITY WIRELESS, INC.	6630	8
VONAGE AMERICA LLC	197D	2
WINDSTREAM NORLIGHT, INC. - TN	5514	2
WINDSTREAM NUVOX, INC.	8660	3
YMAX COMMUNICATIONS CORP. - TN	284E	2

Block holders with No CO Codes Assigned

Company	OCN
MOUNTAINET TELEPHONE COMPANY - TN	008A
TERRA NOVA TELECOM INC.	145J
RTC SOLUTIONS, INC. - GA	271E
TIME WARNER CABLE INFORMATION SVCS (TENNESSEE), TN	720G

Central Office Code Summary

NPA	**423**					
Assigned NXXs	712					
Reserved NXXs	0					
Unavailable NXXs	24					
Available NXXs	64	See Note				
Total	800					
Codes Assignment History	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
423 NPA	15	18	12	14	29	12*
*As of September 12, 2022						
Exhaust:	Based on the April 2022 NRUF, the 423 NPA projected to exhaust in 3Q2025.					

Note: Unavailable indicates codes that are unavailable for assignment. These codes include, but are not limited to, test and special use codes (e.g., 958, 959, 555, time), N11 and other unique codes (e.g., 976, 950) and codes with special dialing arrangements (e.g., 7-digit dialing across NPA boundary).

THOUSANDS-BLOCK STATISTICS	
ST/NPA:	**TN 423**
MEETING DATE:	**10/11/2022**
POOL START DATE (PSD)	**9/16/2002**
RATE CENTERS	
# Total	**75**
# Mandatory	**13**
# Mandatory-Single Service Providers (M*)	**5**
# Optional	**53**
# Excluded	**4**
BLOCKS ASSIGNED	
# Total	**271**
(For time period 10/01/21 - 9/12/22)	
BLOCKS AVAILABLE	
#Total	**391**
(As of preparation date: 9/12/22)	
CODES ASSIGNED	
# Total	**19**
# for Pool Replenishment	**11**
# for Dedicated Customers	**0**
# for LRNs	**8**
(For time period 10/01/21 - 9/12/22)	
CODES FORECASTED	
# Total	**13**
# for Pool Replenishment and Dedicated Customers	**13**
# for LRNs	**0**
(For the next twelve months as of: 9/12/22)	

Initial Planning Document

for

Relief of Tennessee 423 NPA

October 11, 2022

North American Numbering Plan Administrator

Cecilia McCabe
NPA Relief Planner

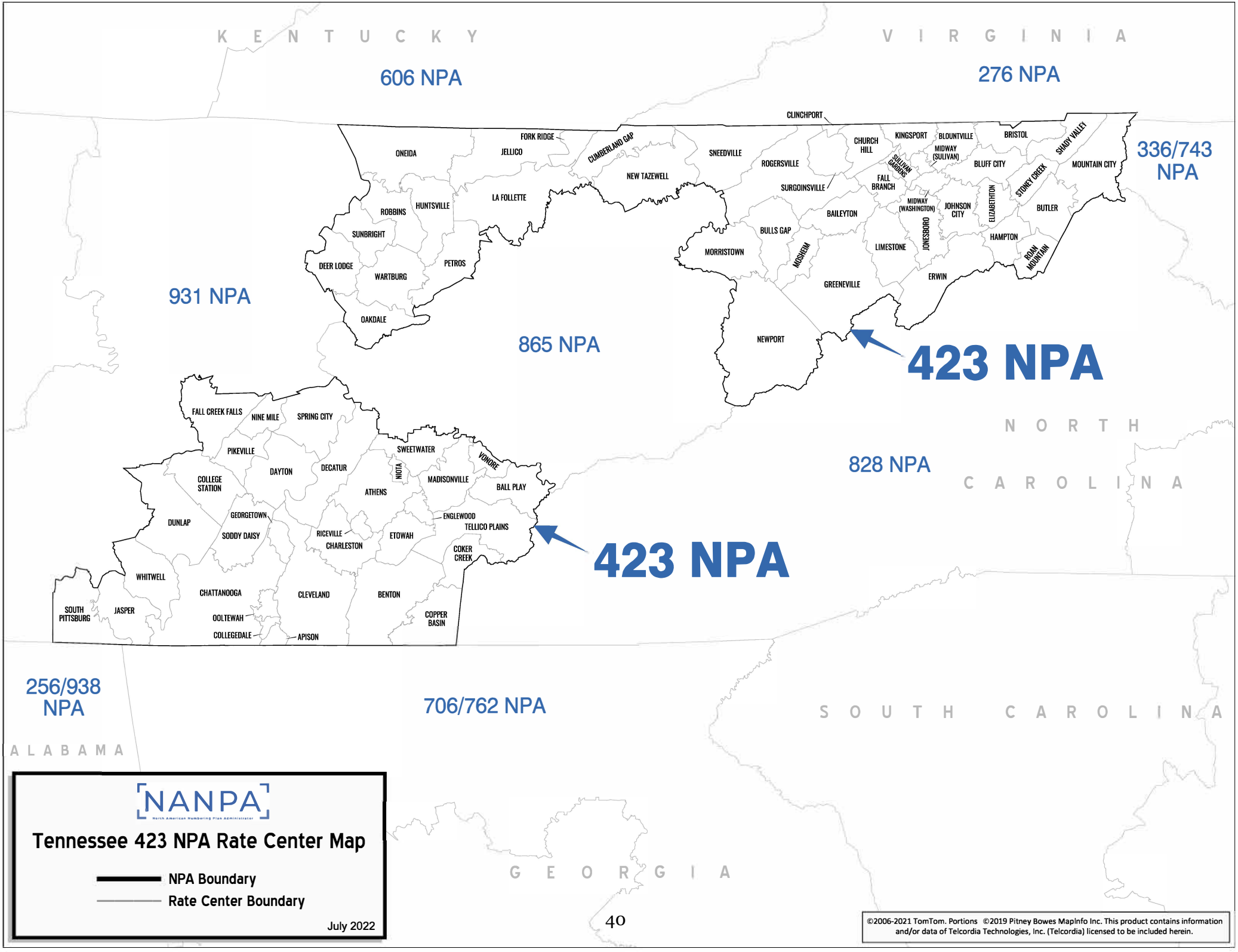
423 NPA Background Information

Relief Planning Background and Assumptions:
In 1995, the 615 NPA was split creating the 423 NPA in which the boundary line roughly follows the time zone boundary. The 423 NPA needed relief in 1999 and an area code split was implemented introducing the 865 NPA. The 423 NPA is comprised of two non-contiguous areas in Eastern Tennessee that are separated by the 865 NPA. Eastern Tennessee includes the Appalachian Trail, one of the world's most well-known hiking trails that was built in the mid-1930s in the Appalachian Mountains and passes along the Tennessee-North Carolina border. Cities in the 423 NPA include but are not limited to Chattanooga, Bristol, Johnson City, Kingsport and many other smaller communities. The 423 NPA is bordered on the north by the KY 606 NPA and the VA 276 NPA, to the east by the NC 336/743 and 828 NPAs, to the south by the AL 256/938 NPA and GA 706/762 NPAs and to the west by the 931 NPA.

Exhaust Forecast:
The April 2022 Numbering Resource Utilization/Forecast ("NRUF") and NPA Exhaust Analysis ("April 2022 NRUF Report"), published by NANPA, indicates that the 423 NPA will exhaust during the third quarter of 2025. Relief planning in the 423 NPA is to start in the third quarter of 2022.

CURRENT DIALING PLAN

Type of Call	Call Terminating in	Dialing Plan
Local Call	Home NPA (HNPA)	7 digits (NXX-XXXX)
	Foreign NPA (FNPA)	10 digits (NPA-NXX-XXXX)
Toll Call	HNPA or FNPA	1+10 digits (1+NPA-NXX-XXXX)
Operator Services Credit card, collect, third party	HNPA or FNPA	0+10 digits (0+NPA-NXX-XXXX)



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Tennessee 423 NPA Rate Center Map

NPA Boundary

Rate Center Boundary

July 2022

TENNESSEE 423 NUMBERING PLAN AREA (NPA)
RELIEF ALTERNATIVES

NPA Established: 1995

ALTERNATIVE DESCRIPTIONS

ALTERNATIVE #1 – ALL-SERVICES DISTRIBUTED OVERLAY

A new NPA would be assigned to the same geographic area occupied by the existing 423 NPA. CO codes in the new NPA will be assigned upon request with the effective date of the new NPA once all assignable CO codes in the 423 NPA have been allocated. Customers would retain their current telephone numbers, but ten-digit local dialing would be required within and between the 423 and the new overlay NPA. There are 75 rate centers in the 423 NPA and at the current assignment rate, the projected life of this alternative would be 34 years.

ALTERNATIVE #2 – GEOGRAPHIC SPLIT

The non-contiguous 423 NPA would become two distinct geographic areas and a new NPA code would be assigned to one of the areas formed by the split. No recommendation is made for which side of the split line would retain the 423 NPA and which side would receive the new NPA. Within each NPA, seven-digit local dialing would be permitted but ten-digit local dialing will be required between the two NPAs. The proposed split boundary would split the 423 NPA with the northern portion of the noncontiguous 423 NPA designated as Area A and southern portion as Area B of the noncontiguous 423 NPA as shown in the Alternative #2 423 Split Rate Center Map. At the current assignment rate, the projected life of this alternative would be:

Area A	**Area B**
Total CO Codes = 370	Total CO Codes = 343
Total Rate Centers = 43	Total Rate Centers = 32
Area code life in years = 33	Area code life in years = 37

TN 423 NPA Rate Center Split List

AREA A – 44 Rate Centers

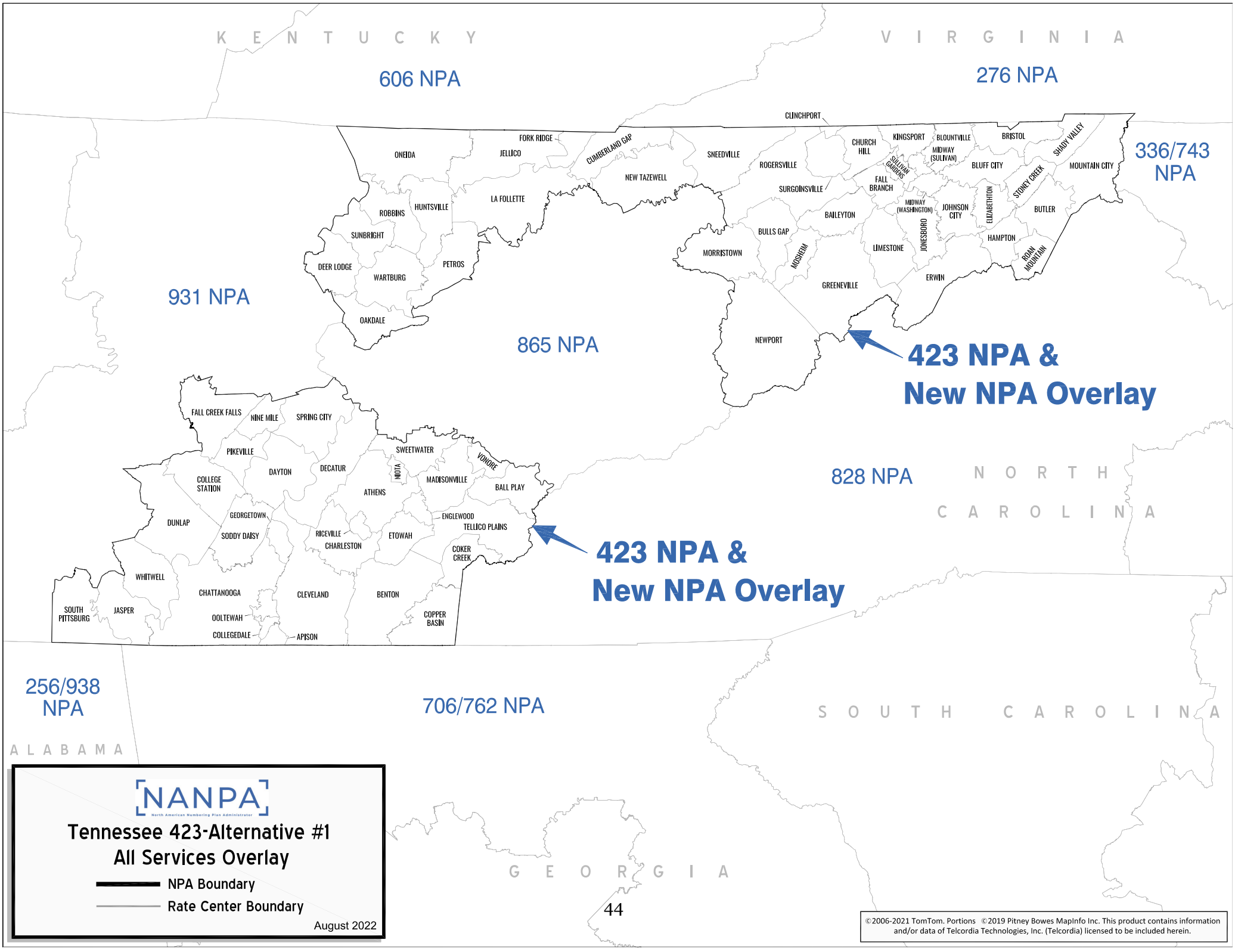
Abbreviated Rate Center	Rate Center Full Name	Area
BAILEYTON	BAILEYTON	A
BLOUNTVL	BLOUNTVILLE	A
BLUFF CITY	BLUFF CITY	A
BRISTOL	BRISTOL	A
BULLS GAP	BULLS GAP	A
BUTLER	BUTLER	A
CHURCHHILL	CHURCH HILL	A
CLINCHPORT	CLINCHPORT	A
CUMBERLDGP	CUMBERLAND GAP	A
DEER LODGE	DEER LODGE	A
ELIZABTHTN	ELIZABETHTON	A
ERWIN	ERWIN	A
FALLBRANCH	FALL BRANCH	A
FORK RIDGE	FORK RIDGE	A
GREENEVL	GREENEVILLE	A
HAMPTON	HAMPTON	A
HUNTSVILLE	HUNTSVILLE	A
JELLICO	JELLICO	A
JOHNSON CY	JOHNSON CITY	A
JONESBORO	JONESBORO	A
KINGSPORT	KINGSPORT	A
LAFOLLETTE	LA FOLLETTE	A
LIMESTONE	LIMESTONE	A
MIDWAY	MIDWAY (WASHINGTON)	A
MIDWAY SUL	MIDWAY (SULIVAN)	A
MORRISTOWN	MORRISTOWN	A
MOSHEIM	MOSHEIM	A
MOUNTAINCY	MOUNTAIN CITY	A
NEWPORT	NEWPORT	A
NEWTAZWELL	NEW TAZEWELL	A
OAKDALE	OAKDALE	A
ONEIDA	ONEIDA	A
PETROS	PETROS	A
ROAN MT	ROAN MOUNTAIN	A
ROBBINS	ROBBINS	A
ROGERSVL	ROGERSVILLE	A
SHADY VLY	SHADY VALLEY	A
SNEEDVILLE	SNEEDVILLE	A
STONEY CRK	STONEY CREEK	A

TN 423 NPA Rate Center Split List

SULIVNGDNS	SULLIVAN GARDENS	A
SUNBRIGHT	SUNBRIGHT	A
SURGOINSVL	SURGOINSVILLE	A
WARTBURG	WARTBURG	A

AREA B – 32 Rate centers

Abbreviated Rate Center	Rate Center Full Name	Area
APISON	APISON	B
ATHENS	ATHENS	B
BALL PLAY	BALL PLAY	B
BENTON	BENTON	B
CHARLESTON	CHARLESTON	B
CHATTNOOGA	CHATTANOOGA	B
CLEVELAND	CLEVELAND	B
COKERCREEK	COKER CREEK	B
COLLEGEDL	COLLEGEDALE	B
COLLEGESTA	COLLEGE STATION	B
COPPERBSIN	COPPER BASIN	B
DAYTON	DAYTON	B
DECATUR	DECATUR	B
DUNLAP	DUNLAP	B
ENGLEWOOD	ENGLEWOOD	B
ETOWAH	ETOWAH	B
FLCRKFALLS	FALL CREEK FALLS	B
GEORGETOWN	GEORGETOWN	B
JASPER	JASPER	B
MADISONVL	MADISONVILLE	B
NINE MILE	NINE MILE	B
NIOTA	NIOTA	B
OOLTEWAH	OOLTEWAH	B
PIKEVILLE	PIKEVILLE	B
RICEVILLE	RICEVILLE	B
SO PITTSBG	SOUTH PITTSBURG	B
SODDYDAISY	SODDY DAISY	B
SPRINGCITY	SPRING CITY	B
SWEETWATER	SWEETWATER	B
TELLICO PL	TELLICO PLAINS	B
VONORE	VONORE	B
WHITWELL	WHITWELL	B



NANPA
North American Numbering Plan Administrator

Tennessee 423-Alternative #1
All Services Overlay

NPA Boundary
Rate Center Boundary

August 2022

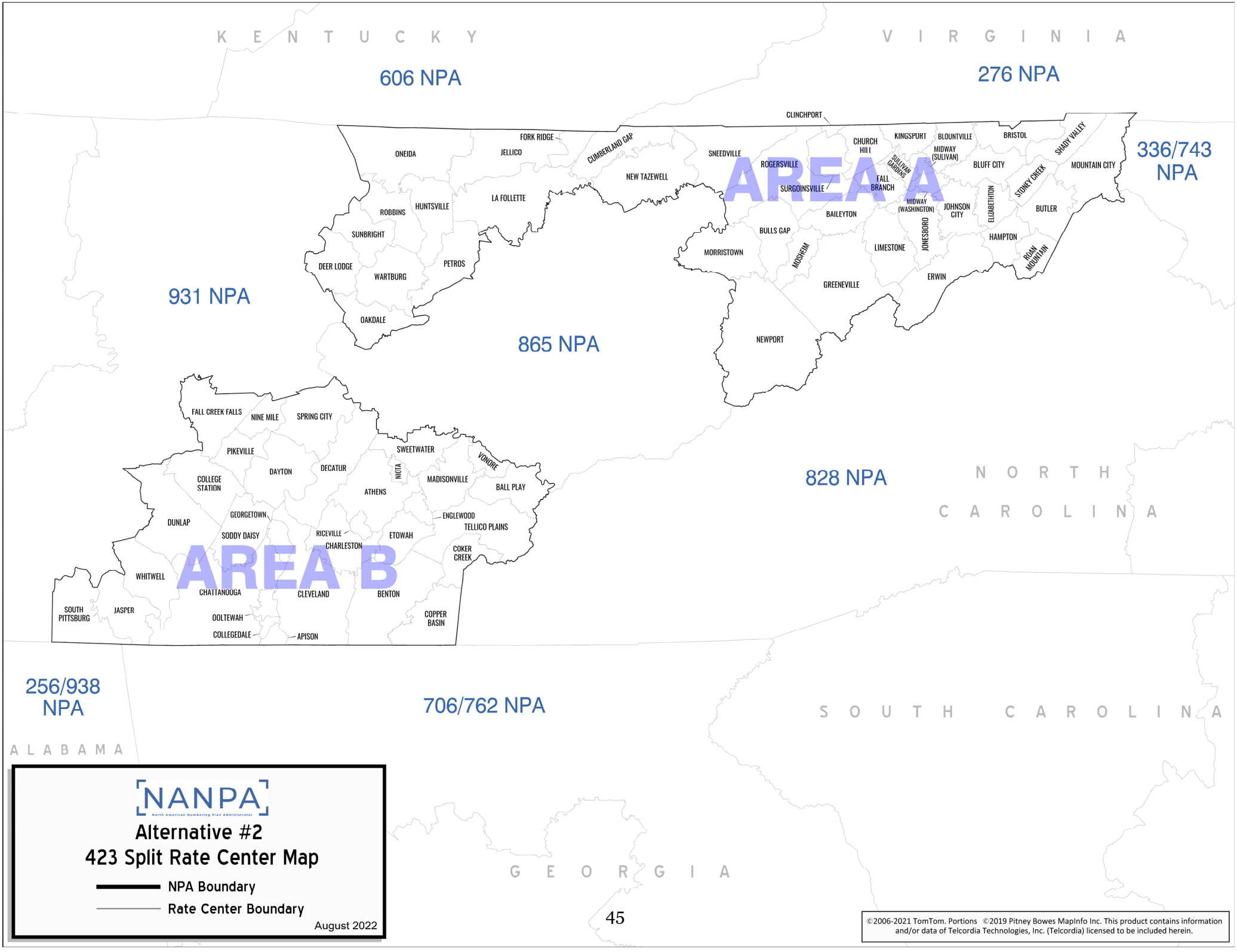


EXHIBIT B

October 27, 2022

To: All 423 NPA Code Holders and Interested Industry Members (Tennessee)

Subject: Final Minutes of the Initial Planning Meeting for the 423 NPA

Attached are the final minutes from the October 11, 2022, Tennessee 423 NPA Initial Planning meeting. These minutes became final on October 27, 2022.

If you have any questions, I can be reached by phone at (925) 420-0130 or contact me by email at cmccabe@nanpa.com.

Sincerely,

Cecilia McCabe
NPA Relief Planner
NANPA

cc: John Hutton – Tennessee Public Utility Commission

TENNESSEE 423 NPA
INITIAL RELIEF PLANNING MEETING
VIA WEB CONFERENCE
FINAL MINUTES
October 11, 2022

WELCOME, INTRODUCTIONS & AGENDA REVIEW
Cecilia McCabe, NPA Relief Planner–NANPA, welcomed the participants and reviewed the objective of the meeting. A list of attendees can be found in Attachment #1. Cecilia then reviewed the agenda.

REVIEW CONSENSUS PROCESS
Cecilia stated that the ATIS (Alliance for Telecommunications Industry Solutions) approved industry consensus process would be followed. She reviewed the consensus process and explained how consensus is determined. In addition, she stated that the minutes would be comprised of consensus agreements, and that issues not captured by consensus could be expressed in the form of a "Statement for the Record," which could be conveyed at any point during the meeting.

NANPA's ROLE AND RESPONSIBILITIES
Cecilia reviewed NANPA's role and responsibilities as follows:

- Starts the relief planning process 36 months prior to exhaust of the NPA.
- Distributes the Initial Planning Document ("IPD") at least four weeks prior to the first industry meeting, which was completed on September 12, 2022.
- Facilitates the meeting, permitting the telecommunications industry of Tennessee ("Industry") to reach consensus on the relief alternative to be included in the regulatory filing.
- Determines any additional items to include in the relief filing with the Tennessee Public Utility Commission ("Commission") such as the implementation intervals, dialing plan, and compliance with any state-specific requirements.
- Then, NANPA is charged with the responsibility of filing a relief petition on behalf of the Industry with the Commission. Once the Industry comes to consensus on what should be included in the filing, NANPA will complete the legal filing within six weeks of today's meeting per the INC guidelines or as decided by the Industry or as required by the state statute.

HISTORY OF 423 NPA
Cecilia stated that relief planning efforts for the 423 NPA initially began in September of 2001, and NANPA had scheduled a relief planning meeting for November of 2001. Due to a reduction in demand and the return of Central Office ("CO") codes to the inventory, relief planning was suspended and with the implementation of thousands-block number pooling it further delayed the need for relief until now.

REVIEW NPA RELIEF PLANNING GUIDELINES
Cecilia reviewed pertinent sections of the NPA Code Relief Planning and Notifications Guidelines ATIS-0300061 ("Guidelines").

Cecilia reviewed Section 5.0, which states:

The relief options shall cover a period of at least 15 years beyond the predicted date of exhaust, and may cover more than one relief activity, if necessary, during the time frame. If the only viable relief option is less than 15 years from the predicted date of exhaust, then NANPA shall provide this relief option.

For any relief activity proposed in the plan that requires number changes, it is recommended that customers who undergo number changes shall not be required to change again for a period of 15 years.

Cecilia reviewed section 6.1 of the Guidelines regarding an NPA split which states:

By this method, the exhausting NPA is split into two or more geographic areas and a new NPA code is assigned to one of the areas formed by the split. This method generally acknowledges jurisdictional or natural boundaries but, for technical reasons and number optimization considerations, the actual boundaries must conform to existing rate center boundaries. Number changes are mandatory for customers assigned numbers from NXX codes that are moved to the new NPA.

Cecilia noted that there is more than one viable relief option available for the 423 NPA and also reviewed Section 6.3 of the Guidelines regarding an all-services distributed overlay which states:

An NPA overlay occurs when more than one NPA code serves the same geographic area. In an NPA overlay, code relief is generally provided by opening a new NPA code covering the same geographic area as the NPA(s) requiring relief. NXX codes from this new NPA are assigned on a carrier-neutral basis, i.e., first come, first served. With the overlay method, the FCC requires mandatory 10-digit local dialing between and within the old and new NPAs. Some states require 1 + 10 digit local dialing, and some require 10-digit local dialing and allow 1 + 10 digit local dialing at the SP's discretion. The overlay method eliminates the need for customer number changes as required under the split and boundary realignment methods. In areas where an overlay is already in place, a subsequent overlay allows the option to eliminate the permissive dialing period as part of implementation. Other potential implementation strategies have been identified for an NPA overlay.

Cecilia also reviewed Section 7.2 of the Guidelines which states:

Issues related to timing and scheduling will vary with the type of relief method to be implemented as well as the level of difficulty of the required changes. In general, the relief implementation should be in place six months prior to the projected exhaust of the NPA, but in extraordinary situations, at least three months before the existing NPA would exhaust under the highest growth projections.

Cecilia then referred the Industry participants to Annex B of the Guidelines which lists issues to be considered during NPA relief planning, and Annex E which lists general attributes of the most common relief alternatives.

Cecilia stated that the referenced sections of the Guidelines can be downloaded from the ATIS web site at: (www.atis.org).

Cecilia reviewed the following pertinent documents that were also included in the meeting materials:

- Relief planning meeting aids
- Rate center list
- Code holder list

CO CODE STATUS

Cecilia stated that two additional CO codes were assigned since putting together the meeting documents, and the updated assignment totals will be included in the minutes. A question was asked about whether the two additional code assignments were for pool replenishment or LRNs. Cecilia stated the meeting minutes would include that information.

As of October 11, 2022, the 423 NPA has 714 CO codes assigned, 62 CO codes available for assignment, and 24 unavailable CO codes. There are 69 total service providers in the 423 NPA of which four (4) have only thousands-blocks assigned. (See Attachment #2)

THOUSANDS-BLOCK INFORMATION

Cecilia reported that in the 423 NPA, pooling commenced on September 16, 2002 and there are 75 rate centers of which 13 are mandatory, five (5) are mandatory-single service providers, 53 are optional and four (4) are excluded from pooling. From the period of October 1, 2021 to October 11, 2022, 280 blocks have been assigned and 21 CO codes have been assigned; 12 for pool replenishment and nine (9) for LRNs. As of October 10, 2022, there are 392 blocks available for assignment to service providers. The forecasted demand for the next twelve months is 14 CO codes for pool replenishment and dedicated customers and one (1) CO code for an LRN. (See Attachment #3)

RELIEF PLANNING BACKGROUND AND ASSUMPTIONS

In 1995, the 615 NPA was split creating the 423 NPA in which the boundary line roughly follows the time zone boundary. The 423 NPA needed relief in 1999 and an area code split was implemented introducing the 865 NPA. The 423 NPA is comprised of two non-contiguous areas in Eastern Tennessee that are separated by the 865 NPA. Eastern Tennessee includes the Appalachian Trail, one of the world's most well-known hiking trails that was built in the mid-1930s in the Appalachian Mountains and passes along the Tennessee-North Carolina border.

Cities in the 423 NPA include but are not limited to Chattanooga, Bristol, Johnson City, Kingsport and many other smaller communities. The 423 NPA is bordered on the north by the KY 606 NPA and the VA 276 NPA, to the east by the NC 336/743 and 828 NPAs, to the south by the AL 256/938 NPA and GA 706/762 NPAs and to the west by the 931 NPA.

Exhaust Forecast:

The April 2022 Numbering Resource Utilization/Forecast (NRUF) and NPA Exhaust Analysis ("April 2022 NRUF Report"), published by NANPA, indicated that the 423 NPA would exhaust during the third quarter of 2025.

Cecilia also reviewed the current dialing plan in the 423 NPA and a current map of the 423 NPA.

REVIEW OF RELIEF PLANNING OPTIONS
Cecilia presented two relief alternatives for the 423 NPA:

ALTERNATIVE #1 – ALL-SERVICES DISTRIBUTED OVERLAY
A new NPA would be assigned to the same geographic area occupied by the existing 423 NPA. CO codes in the new NPA will be assigned upon request with the effective date of the new NPA once all assignable CO codes in the 423 NPA have been allocated. Customers would retain their current telephone numbers, but ten-digit local dialing would be required within and between the 423 and the new overlay NPA. There are 75 rate centers in the 423 NPA and at the current assignment rate, the projected life of this alternative would be 34 years.

ALTERNATIVE #2 – GEOGRAPHIC SPLIT
The non-contiguous 423 NPA would become two distinct geographic areas and a new NPA code would be assigned to one of the areas formed by the split. No recommendation is made for which side of the split line would retain the 423 NPA and which side would receive the new NPA. Within each NPA, seven-digit local dialing would be permitted but ten-digit local dialing will be required between the two NPAs. The proposed split boundary would split the 423 NPA with the northern portion of the noncontiguous 423 NPA designated as Area A and southern portion as Area B of the noncontiguous 423 NPA as shown in the Alternative #2 423 NPA Split Rate Center Map. At the current assignment rate, the projected life of this alternative would be:

Area A	**Area B**
Total CO Codes = 370	Total CO Codes = 343
Total Rate Centers = 43	Total Rate Centers = 32
Area code life in years = 33	Area code life in years = 37

Cecilia also reviewed the rate center split list as well as maps for each relief alternative.

CONSENSUS ON THE RELIEF ALTERNATIVE
The Industry discussed the pros and cons for each relief alternative to determine which alternative would be recommended to the Commission. A proposal was made, and consensus was reached, to recommend Alternative #1, an All-Services Distributed Overlay, due to the pros and cons listed for each relief alternative. The All-Services Distributed Overlay will be included as the Industry's choice of relief in the petition filed with the Commission.

Following are the pros and cons for each relief option that were utilized by the Industry to reach consensus on the recommended alternative:

Alternative #1 - All-Services Distributed Overlay
Pros:

Alternative #1	
1	All existing customers would retain the 423 area code and would not have to change their telephone number.
2	Does not discriminate against customers on different sides of a boundary line as does a geographic split.
3	Less customer confusion and easier education process.

4	Less financial impact on business customers because there is no need to change signage, advertising and stationery unless they currently only show 7-digit numbers.
5	Residential customers do not have to update personal printed material such as checks and websites, etc. unless they currently show 7-digit numbers.
6	No need for synchronization of old and new NPAs in NPAC databases as would be required for an NPA split.
7	Minimizes call routing issues, especially with ported numbers.
8	Easier for service providers to implement from a translations, billing and service order system perspective.
9	Minimal data entries handled in national databases such as BIRRDS, LERG and the Terminating Point Master Table.
10	The Commission would not have to decide which side retains the 423 NPA as would be required for an NPA split.
11	Does not impact some wireless carriers that have to reprogram handsets manually as would be required for an NPA split.
12	No technical impacts to number portability, text messaging or multimedia messaging.
13	An all-services distributed overlay is simpler to implement from both a technical and customer education perspective and prevents having to educate customers twice as would be required for a split.
14	Helps move customers toward nationwide 10-digit dialing.
15	Transitioning to 10-digit local dialing will enable central office codes protected for 7-digit routes to be released for assignment.
16	Customers receiving new NPA in a split will not have to notify friends, family, business associates etc., of their new area code and telephone number.

Cons:

Alternative #1	
1	Consistent with FCC regulations, the relief plan would require 10-digit local dialing for all local calls within and between the 423 NPA and the new overlay NPA.
2	Financial costs to add NPA to signage and printed material where only 7-digit number is shown.
3	Customers would have to reprogram any equipment currently programmed to dial 7-digits to dial 10-digits (e.g., alarm systems, PSAP dial systems, security gates, PBXs, life safety systems, computer modems, voicemail systems, fax machines, etc.).

Alternative #2 – Geographic Split
Pros:

Alternative #2	
1	Maintains seven-digit dialing for local calls within the same NPA.
2	Approximately half of the customers would not experience a change if they keep the 423 NPA.

Cons:

Alternative #2	
1	Requires approximately half of 423 NPA customers to change their area code.
2	Financial impact to half of businesses to incur costs to change their advertising for telephone #'s and stationery if currently showing 10-digit telephone numbers.
3	All 423 NPA customers previously went through a split 23 years ago and half will have to change their area code again.
4	Difficult Commission decision on which side retains the 423 NPA.
5	Longer time period needed for service providers to implement this type of relief.
6	Customers whose numbers change must contact friends, family and business associates with the telephone number changes.
7	More complicated and costly to implement for service providers in their billing, translations and database systems.
8	Negative impacts to E911, industry and alarm system databases that must be updated with customers' new telephone numbers.
9	Negative impact to directories and directory assistance databases that must be updated with customers' new telephone numbers.
10	Timing of publication of telephone directories must be coordinated with the implementation of the new NPA.
11	Split has a larger impact to greater number of existing customers due to change in existing customers' telephone numbers.
12	Split requires significant challenges to service provider's operational support systems and network elements.
13	Splits cause customer confusion with caller ID during implementation.
14	Older wireless handsets without over-the-air programming must be manually programmed for those numbers that are changing.
15	Splits require the 423 NPA and new NPA to be synchronized with the NPAC database to ensure accurate call routing and facilitation of port requests.
16	Splits require a more challenging customer education process for service providers that have customers on both sides of the split line.
17	Splits require the 800/SMS database to be updated.
18	Splits reduce the geographic area served by one area code.
19	For some wireless carriers, text messaging and multimedia service can only handle one version of the 10-digit number so they will fail if they are sent using the 423 area code during permissive dialing. This may interrupt a customer's ability to receive two-factor authentication notifications.
20	The last split implemented was in 2007. There is additional complexity to implement a split now due to changing technologies. Any lessons learned during the implementation of the last split may now be obsolete.

CONSENSUS ON DIALING PLAN AND IMPLEMENTATION INTERVALS

After discussion regarding the dialing plan, a recommendation was made, and consensus was reached to include the following as the dialing plan that will be applied to the 423 NPA with the implementation of an All-Services Distributed Overlay. Cecilia asked whether Extended Area

Service ("EAS") should be included in the dialing plan and stated that it was not included in the TN 615/629 NPA overlay (PL 459). It was agreed to that it would remain listed in the dialing plan.

Consensus was reached on the following dialing plan:

Dialing Plan for the 423 all-services distributed overlay:

Type of Call	Call Terminating in	Dialing Plan
Local call	Home NPA (HNPA) or Foreign NPA (FNPA) (including Extended Area Service (EAS) calls)	10 digits (NPA-NXX-XXXX)*
Toll Call	HNPA or FNPA	1+10 digits (1+NPA-NXX-XXXX)
Operator Services Credit card, collect, third party	HNPA or FNPA	0+10 digits (0+NPA-NXX-XXXX)

* 1+10 permissive dialing at service provider's discretion

Implementation Schedule

After discussion on a suggested implementation schedule, consensus was reached on a 13-month implementation schedule as follows:

EVENT	TIMEFRAME
Network Preparation Period	6 months
Permissive 10-Digit Dialing and Customer Education Period *(Calls within existing NPA can be dialed using 7 or 10 digits) Mandatory* dialing period begins at the end of the Permissive Dialing Period	6 months
First Code Activation after end of Permissive dialing period *(Effective date for codes from the new NPA)* *	1 month (after Mandatory Dialing Period Begins)
Total Implementation Interval	13 months

**CO codes in the new NPA will not be assigned until all available codes in the 423 NPA have been exhausted.*

CUSTOMER EDUCATION AND TECHNICAL MILESTONES:

A recommendation was made, and consensus was reached to include the following *Customer Education and Technical Milestones* for the 423 NPA All-Services Distributed Overlay implementation.

Customer Education Milestones:

		Responsibility
1	Issue first customer notification (e.g., bill messages, bill inserts, direct mail, text	All Service Providers

	messaging, email)	
2	Issue initial press release	Commission and Service Providers that have the ability (If necessary)
3	Send Special letters to PSAPs and Directory Publishers	Co-chairs of industry committee
4	Update social media with information regarding new overlay NPA.	All Service Providers (optional)
5	Update websites with information regarding new overlay NPA	All Service Providers
6	Develop language for use in Directories to alert the consumers of 10-digit local dialing and the new area code	Service Providers that publish directories
	After Permissive 7 and 10-Digit Dialing Begins	
7	Issue second customer notification (e.g., bill messages, bill inserts, direct mail, text messaging, email)	All Service Providers
8	Send reminder Special letters to Alarm and Safety, Directory Publishers, Pay Telephone & PSAPs	Co-chairs of industry committee
9	Update social media with information regarding new overlay NPA.	All Service Providers (optional)
10	Update websites with information regarding new overlay NPA	All Service Providers
11	Issue second mandatory press release just prior to the new overlay NPA's effective date	Commission and Service Providers that have the ability (If necessary)

Technical Milestones:

		Responsibility
1	Obtain industry test code from NANPA and activate the test number	One Service Provider volunteer
2	Open the test code in carriers' network	All Service Providers
3	LERG updates in BIRRDS or via AOCN. (i.e. routing changes, rehomes, change from 7 to 10 terminating digits at end office and at access tandem, etc.)	All Service Providers
4	Ensure Highway boxes are programmed with 10-digit dialing	Co-chairs of industry committee
5	Network ready for Permissive Dialing	All Service Providers
6	Create Permissive Dialing Industry Contact List	Co-chairs of industry committee
	Permissive Dialing Begins	
7	Establish NPA Specific type of Trunks	All Service Providers (if needed)
8	Completion of 10-digit signaling transition	All Service Providers

	between carriers' networks	
9	Require email from service providers when the 10-digit signaling transition between carriers' networks has been completed	All Service Providers
10	Update on all speed calling, call forwarding numbers and voicemail options in embedded database to reflect 10-digit dialing	All Service Providers
11	Recorded announcements in Place and Tested	All Service Providers
	E911 Work Plan	
12	Confirm new Emergency Service Number (ESN)/Numbering Plan Digit (NPD) has been established for the new NPA	E911 Providers
13	Ensure SRDB table has new NPA built	E911 Providers
14	Notify PSAPs, PSALI customers and County Coordinators	E911 Providers
15	Review and Submit CLEC Trunk Order Requests to local provider if needed	All Service Providers (if needed)
16	Update PSAP equipment to recognize new NPA	PSAPs
17	Trunk Orders Complete	All Service Providers (if needed)
18	Build E911 Network/Tandem Translations	E911 Providers
19	Verify if all PSAP work has been completed	E911 Providers
20	Activate E911 Network/Tandem Translations	E911 Providers

The above are the typical milestones necessary for implementation of an initial all-services distributed overlay; however, these may need to be modified during the actual implementation.

OPEN DISCUSSION AND STATEMENTS FOR THE RECORD
There were no additional items for discussion or statements for the record.

NANPA FILING INDUSTRY EFFORTS WITH COMMISSION
Consensus was reached that NANPA will file the petition for relief with the Commission informing them of the outcome of this relief planning meeting. The Guidelines require the petition be filed within 6-weeks (November 22, 2022) of the initial relief planning meeting unless otherwise decided by the Industry. NANPA will post a draft petition no later than November 1, 2022, and the Industry will reach consensus on the final petition at a meeting scheduled for November 8, 2022.

Cecilia reviewed the following schedule for the remaining activities until the TN 423 NPA petition is filed with the Commission.

TN 423 NPA Relief Planning Schedule

October 25 – Draft Minutes Posted via NNS
November 1 – Post Draft Petition via NNS
November 1 – Meeting Minutes become Final
November 8 – Draft Petition Review Meeting at 2:00PM CT
November 22– File Petition with Tennessee Public Utility Commission

MEETING MINUTES APPROVAL

Consensus was reached that the draft minutes resulting from this meeting will be distributed to the Industry no later than October 25, 2022. Any changes or corrections are to be submitted to Cecilia via email at cmccabe@nanpa.com no later than one week after the minutes are posted to the NANP Administration System (NAS) available for registered users through the NANPA website when the minutes will become final.

The meeting was adjourned.

# # #

These minutes became final on October 27, 2022.

Attachment # 1

Tennessee 423 NPA
Initial Relief Planning Meeting via Web Conference
October 11, 2022
Participants

NAME	COMPANY
Sharon Poer	AT&T
Rita Schmitz	CenturyLink/Lumen
Kathy Rogers	DISH Wireless
Matthew Nolan	Charter Communications
Kathy Troughton	Charter Communications
Cecilia McCabe	NANPA
Heidi Wayman	NANPA
Linda Hymans	NANPA
Florence Weber	NANPA
John Hutton	Tennessee Public Utility Commission
Paul Nejedlo	TDS
Anne Chism	TDS
Shaunna Forshee	T-Mobile
Laura Dalton	Verizon
Dana Crandall	Verizon Wireless

Central Office Code Summary

NPA	**423**					
Assigned NXXs	714					
Reserved NXXs	0					
Unavailable NXXs	24					
Available NXXs	62	See Note				
Total	800					
Codes Assignment History	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
423 NPA	15	18	12	14	29	14*

*As of October 12, 2022: Two additional CO codes had been assigned just prior to the meeting and are included in this summary.

Exhaust:	Based on the April 2022 NRUF, the 423 NPA projected to exhaust in 3Q2025.					

Note: Unavailable indicates codes that are unavailable for assignment. These codes include, but are not limited to, test and special use codes (e.g., 958, 959, 555, time), N11 and other unique codes (e.g., 976, 950) and codes with special dialing arrangements (e.g., 7-digit dialing across NPA boundary).

THOUSANDS-BLOCK STATISTICS	
ST/NPA:	**TN 423**
MEETING DATE:	**10/11/2022**
POOL START DATE (PSD)	**9/16/2002**
RATE CENTERS	
# Total	**75**
# Mandatory	**13**
# Mandatory-Single Service Providers (M*)	**5**
# Optional	**53**
# Excluded	**4**
BLOCKS ASSIGNED	
# Total	**280**
(For time period 10/01/21 - 10/10/22)	
BLOCKS AVAILABLE	
#Total	**392**
(As of preparation date: 10/10/22)	
CODES ASSIGNED	
# Total	**21**
# for Pool Replenishment	**12***
# for Dedicated Customers	**0**
# for LRNs	**9***
(For time period 10/01/21 - 10/12/22)	
**** This information was updated during the meeting***	
CODES FORECASTED	
# Total	**14**
# for Pool Replenishment and Dedicated Customers	**13**
# for LRNs	**1**
(For the next twelve months as of: 10/10/22)	