ATIS-0300061

NPA Code Relief Planning and Notification Guidelines

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The Industry Numbering Committee (INC) provides an open forum to address and resolve industry-wide issues associated with planning, administration, allocation, assignment and use of North American Numbering Plan (NANP) numbering resources within the NANP area.

This document is maintained under the direction of ATIS and the INC. Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, INC Staff, 1200 G Street NW, Suite 500, Washington, DC 20005. All changes to this document shall be made through the INC issue resolution process and adopted by the INC as set forth in the *ATIS Operating Procedures*.

Foreword

The Alliance for Telecommunications Industry Solutions (ATIS) serves the public through improved understanding between carriers, customers, and manufacturers. The Industry Numbering Committee provides an open forum to address and resolve industry-wide issues associated with planning, administration, allocation, assignment and use of the North American Numbering Plan (NANP) numbering resources within the NANP area.

The mandatory requirements are designated by the word *shall* and *must,* and recommendations by the word *should*. Where both a mandatory requirement and a recommendation are specified for the same criterion, the recommendation represents a goal currently identifiable as having distinct compatibility or performance advantages. The word *may* denotes an optional capability that could augment the standard. The standard is fully functional without the incorporation of this optional capability.

Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, INC, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time of consensus on this document, INC, which was responsible for its development, had the following leadership:

Dyan Adams, Verizon

Allyson Blevins, Twilio

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ATIS Standard on –

NPA Code Relief Planning and Notification Guidelines

1 Purpose

The purpose of this document is to provide guidelines for NPA code relief planning activities. This includes the relief planning process, industry notification process and NANPA's responsibilities to Affected Parties and applicable regulatory authorities within the North American Numbering Plan area. It also provides relief planning principles, administrative responsibilities and industry notification requirements. The steps of the NPA code relief planning process are listed and the alternative methods of providing relief and their various attributes are described.

2 Assumptions and Constraints

The development of these guidelines include the following assumptions and constraints:

2.1

These guidelines were developed by the INC to apply to geographic NPA relief planning.

2.2

Section 14 has been added to incorporate NANPA's responsibility for Toll Free Service relief planning.

2.3

Relief activities will be undertaken to provide relief to an exhausting NPA. For the purpose of NPA relief planning, it is assumed that the capacity of an NPA is 792 CO codes (NXXs). However, in overlay NPA situations, the CO code exhaust capacity will be the number of NPA codes assigned to that geographic area times 792. It may not be possible to assign all 792 NXXs as CO codes for a variety of reasons.

2.4

The relief plan chosen will seek to minimize end user confusion while balancing multiple objectives including cost effectiveness, minimum customer impact, and long-lasting relief.

2.5

For each relief activity proposed in the plan, it is recommended that customers who undergo number changes shall not be required to change again for a period of 8-10 years**.** However, the ultimate decision as to which geographic area is assigned a new NPA in an NPA split is usually in the hands of local regulatory authorities instead of the industry. In addition, an extended permissive dialing period for certain specific NXX codes, e.g., wireless or NXX codes containing numbers utilized by alarm companies, especially where local number portability (LNP) and/or thousands-block number pooling have been implemented, shall be avoided.

2.6

The ATIS consensus process will be employed in selecting an industry relief recommendation.

2.7

NANPA will moderate industry relief planning meetings and is required to do so in a fair and impartial manner, ensuring that all participants have any opportunity to express their opinions.

2.8

These relief planning guidelines were developed without making any assumption as to who will fill the role of CO Code Administrator or NANP Administrator.

2.9

CO codes and NPA codes are public resources and administrative assignment of these codes does not imply ownership of the resource by the entity performing the administrative function, nor does it imply ownership by the entity to which the resource is assigned.

2.10

The appropriate regulatory authority (e.g., state or country) has the ultimate authority to approve or reject a relief plan.

2.11

In the United States, geographic NPA code boundaries typically do not extend across state lines. Geographic NPA boundaries must follow rate center boundaries.

2.12

Once there is an approved relief plan, all code holders, block holders, and the Pooling Administrator (PA) in the exhausting NPA shall take the appropriate steps to facilitate the implementation of the plan.

2.13

These guidelines and all related documents and guidelines[1] referenced herein will be made available to all Affected Parties by the NANPA upon request.

2.14

Service Providers (SPs) and numbering resource administrators are responsible for managing numbering resources in accordance with these guidelines and the orders of applicable regulatory authorities. Both SPs and numbering resource administrators are subject to audits. Further information may be found in FCC 00-104 ¶62, FCC 00-429 ¶81-99, and 47 CFR §52.15(k).

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[1] ATIS-0300119, *Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines (TBCOCAG)*; ATIS-0300046, *Recommended Notification Procedures to Industry for Changes in Access Network Architecture*.

3 NPA Relief Planning Principles

The following principles should be followed during NPA Code Relief Planning:

3.1

NANPA should facilitate the selection of an NPA code relief alternative based upon industry consensus and the NPA Code Relief Planning Process as outlined in Section 5 below.

3.2

NANPA should establish communication with all Affected Parties, industry members and appropriate regulatory bodies immediately after the need for NPA code relief has been determined.

3.3

Every SP should provide NANPA a contact for notification of NPA relief planning activities. These contacts shall maintain an active NANP Administration System (NAS) log-in and password to ensure notification of, and full participation in, any NPA relief planning activities in which they are assigned numbering resources in the affected NPA(s). A Service Provider Consultant (SPC) participating in an NPA relief planning activity on behalf of a particular SP shall identify the SP it is representing for the purposes of determining consensus.

4 CO Code Administrator's and Pooling Administrator's Responsibilities for Code Relief Planning

This section identifies required code relief planning functions that are related to the CO code (NXX) and thousands-block pooling assignment functions as specified in these guidelines. These functions are identified because they are currently performed in conjunction with code assignment. An objective of these functions is to promote effective and efficient code utilization and thereby help ensure the adequate supply of CO codes (NXXs) and/or blocks of telephone numbers.

Where thousands-block pooling has been implemented, the Pooling Administrator shall be required to provide assistance in the NPA code relief planning process**.**

NPA relief planning functions included in this section are as follows:

4.1

NANPA tracks CO code (NXX) assignments within NPAs to ensure effective and efficient utilization of numbering resources.

4.2

NANPA, with input from the Pooling Administrator, prepares the NRUF as described in the Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines (TBCOCAG, ATIS-0300119) and the North American Numbering Plan Numbering Resource Utilization/Forecast Reporting (NRUF) Guidelines (ATIS-0300068).

4.2.1

NANPA issues requests for, collects and compiles available information related to CO code (NXX) utilization and relief planning forecasts. The Pooling Administrator may issue requests for thousand block data.

4.2.2

NANPA investigates and resolves, wherever possible, any discrepancies in the information provided.

4.2.3

Any information released by NANPA to the industry will be released only on an aggregated or summary basis (See Section 16.1.2 of the Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines).

4.3

NANPA continually monitors and projects CO code (NXX) exhaust within NPAs in order to anticipate the need and prepare for NPA relief activity.

4.4

NANPA develops plans for NPA relief and initiates implementation efforts, in both normal and jeopardy situations (See Section 16 of the Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines). When the need for code relief is identified and relief activity is initiated, NANPA advises all parties affected by NPA relief activities and includes them in the planning effort.

4.5

Currently, NANPA's NPA Relief Planner submits the necessary information to the NPA Administrator who is responsible for the review and assignment of the new NPA. This is currently an internal NANPA function.

4.6

Where necessary, NANPA presents the industry-consensus recommended NPA relief plan to appropriate regulatory authority(ies).

4.7

NANPA and the industry jointly identify dialing plan issues within local jurisdictions at the relief planning meeting.

4.8

NANPA provides assistance to users of numbering resources and suggests alternatives, when possible, that will optimize numbering resource utilization.

4.9

Prepares and issues information related to reports for special information requests and scheduled periodic reports that relate to utilization of numbering resources.

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.[2]

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.[3] 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 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.

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

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

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[4]. 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.

5.5.1 Modifications to Previous Industry Agreements

This process provides industry participants an opportunity under prescribed circumstances to reopen and possibly modify previous agreements reached by consensus. To be fair to all parties and cognizant of the time and effort required to reach industry consensus, the following procedures shall be used to request a reopening of a previous consensus agreement(s).

- At least two Affected Parties are required to request the reopening and review of a consensus agreement(s) achieved at a previous industry meeting. This excludes a previously agreed to industry NPA relief plan, regardless of whether or not that plan has been filed. The request by the parties for a reopening/review must be made in writing to the Director, North American Numbering Plan Administration.
- At least three Affected Parties are required to request the reopening of a previously agreed to industry NPA relief plan that has not been filed with the appropriate regulatory authority. The request by the parties for a reopening/review shall be made in writing to the Director, North American Numbering Plan Administration.
- NANPA shall request a reopening of previous consensus agreements after receiving regulatory approval when circumstances could potentially have a significant impact to the implementation plan.
- NANPA shall notify all Affected Parties at least two (2) weeks in advance that a special conference call has been scheduled. Attached to the notice will be the reasons for and description of the proposed changes. Every effort will be made to avoid conflicts with other industry meetings so that all parties may participate.
- At the beginning of the conference call, Affected Parties will consider whether the previous consensus agreement will be reopened for discussion. If consensus is reached to reopen the discussion, the call will proceed. Absent such a consensus, the conference call will be adjourned.
- Only issues related to the scheduled topic will be considered on this special conference call.
- Meeting minutes shall be produced and distributed by NANPA within 14 calendar days of the conference call.

5.6 Notify Appropriate Regulatory Authority

When consensus is reached within the industry or when NANPA determines additional meetings would not achieve consensus, NANPA should submit to the appropriate regulatory authority the results of the industry effort, if required. In its submission NANPA should also furnish all relevant background information including any statements for the record submitted in real time by industry participants (unless otherwise agreed), meeting minutes, mailing lists, etc. In the case where consensus could not be reached, brief position papers could be included.

5.6.1 Relief for An Existing Overlay

Where NPA relief is required for an existing overlay complex, then the Initial Planning Document, relief planning meeting, and industry consensus to recommend an overlay is not required. NANPA shall draft a relief plan filing requesting approval of the overlay and recommending an implementation schedule including a timeframe for network preparation and customer education, with the new NPA effective at the end of the implementation schedule. There is no need for a permissive dialing period because 10-digit local dialing will already be in place. The draft filing shall include the state's existing overlay dialing plan.

[4] 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.

NANPA shall notify all Affected Parties at least three (3) weeks in advance of a conference call scheduled to review and approve the draft filing. During the conference call, the timeframes for the implementation schedule will be determined. The recommended relief should be in place six (6) months prior to the forecasted exhaust (see Section 7.2). As usual, meeting minutes shall be produced and distributed by NANPA within 14 calendar days of the conference call.

Within 6 weeks of the conference call (unless otherwise agreed by the Affected Parties), NANPA shall submit the filing to the appropriate regulatory agency requesting approval of the overlay, and after regulatory approval has been received, NANPA shall proceed with the implementation process, as reflected in Sections 5.7 – 5.12.

5.6.2 Relief For A Single NPA When An Overlay is the Only Viable Alternative

Where NPA relief is required for a single NPA area, 10-digit local dialing has not been implemented, and NANPA has determined that only an overlay alternative will meet the guidelines, then the Initial Planning Document, relief planning meeting, and industry consensus to recommend an overlay is not required.

NANPA shall draft a relief plan filingrequesting approval of the overlay and recommending an implementation schedule including network preparation, customer education, and a permissive dialing period.

NANPA shall notify all Affected Parties at least three (3) weeks in advance of a conference call scheduled to review and approve the draft filing. In the notification, NANPA will include data (e.g., an NPA with a high concentration of assigned NXXs in one or only a few rate centers) supporting the recommendation that the overlay is the only relief method in compliance with the criteria listed in Section 5.0. The three (3) week timeframe notification may be necessary to allow individual industry members to fully analyze the technical, educational, and operational impacts to their respective subscribers and networks in determining the timeframes needed for implementation.

During the conference call, the timeframes for the implementation schedule will be determined to finalize the relief filing. The draft filing will include a recommendation for 10-digit dialing for local[5] calls (to either the home NPA (HNPA) and to foreign NPA(s) [FNPA]), and 1+10-digit dialing for toll cals (to either HNPA or FNPA), unless the state has an existing overlay dialing plan that is different. The recommended relief (i.e., mandatory dialing and the new NPA's inservice date) should be six (6) months prior to the forecasted exhaust (see Section 5.1). As usual, meeting minutes shall be produced and distributed by NANPA within 14 calendar days of the conference call.

Within six (6) weeks of the conference call (unless otherwise agreed by the Affected Parties), NANPA shall submit the filing to the appropriate regulatory agency requesting approval of the overlay. After regulatory approval has been received, NANPA shall proceed with the implementation process, as reflected in Sections 5.7 – 5.12.

5.6.3 Relief For A Single NPA When 10-Digit Local Dialing Has Been or Will Be Implemented

Where NPA relief is required for a single NPA area that is scheduled to transition to 10-digit local dialing or has already transitioned to 10-digit local dialing[6], then the Initial Planning Document, relief planning meeting, and industry consensus to recommend an overlay is not required.

NANPA shall draft a relief plan filing requesting approval of the overlay and recommending an implementation schedule including a timeframe for network preparation and customer education, with the new NPA effective at the end of the implementation schedule. There is no need for a permissive dialing period because 10-digit local dialing will already be in place. The draft filing shall include the state's existing overlay dialing plan.

NANPA shall notify all Affected Parties at least three (3) weeks in advance of a conference call scheduled to review and approve the draft filing. During the conference call, the timeframes for the implementation schedule will be determined. The recommended relief should be in place six (6) months prior to the forecasted exhaust (see Section 7.2). As usual, meeting minutes shall be produced and distributed by NANPA within 14 calendar days of the conference call.

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[5] As an industry Best Practice, service providers are encouraged to also provide permissive 1+ 10 digit local dialing at their discretion.

[6] For example, FCC 20-100, ¶53.

Within 6 weeks of the conference call (unless otherwise agreed by the Affected Parties), NANPA shall submit the filing to the appropriate regulatory agency requesting approval of the overlay. After regulatory approval has been received, NANPA shall proceed with the implementation process, as reflected in Sections 5.7 – 5.12.

5.7 Approval by Appropriate Regulatory Authority

When the regulator issues an order (or other written approval) for NPA relief, NANPA shall confirm the approved plan meets the criteria for assignment as set forth in this document. If the approved plan meets the criteria, NANPA will assign a new NPA within one (1) week of receipt of the approved plan. If the approved plan does not meet the criteria for assignment, NANPA will suspend the assignment pending FCC direction.

5.8 Public Statements/Press Releases

Public statements released prior to the first industry NPA relief planning meeting should, to the extent available, contain:

- factual information about the impending exhaust of the NPA
- and that questions concerning the relief effort may be directed to the NANPA

During the relief planning process, public statements are not encouraged. However, some regulators may require input from the public to the planning process. If questions are directed to the NANPA, or if reaction to a press article is warranted, responses should, to the extent possible, be limited to factual information (as opposed to opinion or preference) concerning relief options being considered and to agreements reached by the industry that are in the public record.

Within two (2) weeks of the NPA assignment NANPA will issue a press release informing the public of this action. NANPA need not issue that press release if the regulatory authority wishes to do so instead. Information that may be incorporated with this notification includes a map indicating NPA boundaries and dialing procedures.

5.9 Industry NPA Relief Implementation Meeting

NANPA will host and facilitate an Industry NPA Relief Implementation meeting via conference call following the final acceptance of a relief plan (NANPA, on its own initiative or using input from Service Providers, has the option to convene a face-to-face meeting if the chosen plan presents unusual implementation factors.). The meeting shall occur no more than 45 calendar days following the assignment of a new NPA. The agenda for the industry implementation meeting should include relevant dates, implementation milestones, customer education considerations, press releases, provision of test numbers, Planning Letter content and subsequent industry communication regarding implementation issues.

5.10 Planning Letter

NANPA shall post a Planning Letter to its website informing the public and the industry of pending NPA relief implementation no more than three (3) weeks after the initial implementation meeting. If regulatory approval of the implementation plan with interval dates is required, the Planning Letter shall be published within 14 calendar days of regulatory approval. If an additional implementation meeting is required, the Planning Letter shall be published within three (3) weeks of the additional implementation meeting.

This Planning Letter should include a full disclosure of the old and new NPAs, the associated testing period, permissive dialing period, affected NXXs, rate centers, records conversion dates, the beginning date for mandatory dialing, and the effective date of the new NPA (See time line Appendix C). Also included should be a test number for routing verification of the new NPA, the date it will become available and the disconnect date. Other information that may be incorporated with this notification includes a map indicating NPA boundaries, dialing procedures and a NANPA contact name and telephone number. Service providers that are code and/or block holders within the

affected NPA should provide to the NANPA their company's NPA Relief Project Coordinator's contact information for inclusion in the company contact section of the Planning Letter.

5.10.1 Subsequent Filings Order by Commission

After 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).

5.10.2 LERG™ Routing Guide Notice

The NPAs and the NXXs impacted by NPA relief should be published in the iconectiv® LERG Routing Guide at least six (6) months in advance (See also Section 8).

5.10.3 Planning Letter Change Notice

Subsequent regulatory orders (or other written approvals) that change a relief order previously issued addressing NPA relief planning require NANPA to post a Planning Letter change notice to the NANPA website within 14 calendar days of the regulatory order. If the subsequent regulatory order requires NANPA to meet with the Industry to obtain details to be included in the new Planning Letter, then only the notice of the industry meeting shall be distributed within 14 calendar days of the regulatory order, and then the new Planning Letter shall be posted to the NANPA website within 3 weeks of the industry meeting. The new Planning Letter shall contain as much detail as possible to notify the public and the industry of the changes, and normally includes information such as a new list of impacted NXXs affected by the change, changes to the permissive and/or mandatory dialing dates or the new NPA, changes to the effective and disconnect dates of test codes, a list of rate centers affected by the change, etc. The new Planning Letter change notice is also posted in order for TRA to update the affected records in BIRRDS.

If the regulatory authority suspends or rescinds implementation of a planned NPA, the NANPA will include in the Planning Letter a notice that rescinds the implementation and the information associated with the previously approved NPA relief plan because this information may change when the regulatory authority lifts the suspension. If the subsequent regulatory order requires NANPA to meet with the Industry to obtain details to be included in the Planning Letter, then only the notice of the industry meeting must be distributed within 14 calendar days within 3 weeks of the industry meeting.

NANPA will update the "Relief Status" of the NPA relief project on the NPA Relief Activity Status Report on the NANPA website from Active to Suspended, Rescinded, etc. based on the terminology used in the regulatory authority order. A brief synopsis from the Planning Letter will be included in the notes section of the NPA Relief Activity Status Report concerning the revised "Relief Status" of the NPA relief project.

5.11 If Relief Is No Longer Needed

During the period of time after NANPA has filed an industry relief plan recommendation with a regulatory authority but before the regulator has approved the plan, the NANPA may determine that the NPA will not exhaust in the next five years based on a non-rationed forecast. Events may have taken place such as a reduction in code demand, the return of codes, and or the implementation of number conservation (e.g., rate center consolidation, thousands-block number pooling), that result in moving the NPA exhaust forecast outward significantly into the future.

NANPA will notify the industry and regulatory authority when such a determination is made. In this notification, NANPA will provide the number of codes available in the NPA and a new projected NPA exhaust date. Upon notification from the NANPA, local industry (per Section 5.5.1), or a regulatory authority may request in writing that the NPA relief plan be rescinded. If requested by a regulator or the industry to withdraw a filed, unapproved relief plan, NANPA will convene a conference call for the purpose of gaining industry consensus to withdraw the relief plan filing under the following conditions:

a) The forecasted exhaust of the NPA is at least five years in the future; and,

b) The NPA is not in jeopardy.

5.12 Life Cycle and Timing of Relief Planning and Implementation

The life cycle of an NPA relief planning and implementation project may vary widely, depending on the local regulatory process. It typically involves the following tasks or events:

- NANPA's notification of the start of the relief planning process to the industry;
- The industry's review of the IPD and/or regulatory filing;
- The process of the industry reaching consensus on a relief recommendation(s) to the appropriate regulator;
- The filing of the relief filing with the regulator;
- The regulatory decision process (which may include regulatory hearings as well as public hearings);
- The order (or other written approval) from the regulator;
- The administrative time needed for NANPA to convene the industry to select implementation dates and publish the Planning Letter;
- The administrative time needed for the industry to form an industry implementation committee, develop implementation milestones, distribution lists and customer education templates;
- The implementation timeline and schedule, which varies depending on the type of relief to be implemented and whether a permissive dialing period is necessary.

The timing between the above tasks varies, and these tasks or events may be modified or delayed as a result of one or more of the following.

- The industry postpones the filing of the relief filing;
- The relief filing becomes eligible for withdrawal (see Section 5.10);
- The regulator does not immediately act on the filing;
- After issuing a relief order, the regulator subsequently determines that relief is not needed and issues an order of "suspension until further notice";
- The regulator dismisses the relief filing;
- The projected exhaust date changes significantly.

Relief filing not acted upon by the regulator are still considered active by NANPA. NANPA continues to monitor the status of the NPA and advises the regulator when the need for relief becomes imminent. Upon request, NANPA provides the regulator updated projected life data for previously recommended or reviewed relief alternatives.

A regulator may initially issue an order for relief, but before relief is in place, may determine that relief is not immediately needed and postpone the implementation. This action is commonly known as a suspension or a deferral. Implementation of the new NPA is postponed and NANPA publishes another Planning Letter to notify the industry. NANPA continues to monitor the status of the NPA and advises the regulator when the need for relief becomes imminent.

Regulators use various terms in ending the relief planning process. Some jurisdictions may close the filing, docket or case, with terms such as: closed, canceled, dismissed, dismissed without prejudice, rescinded deferred, etc. These terms vary according to jurisdiction. When a relief project is "dismissed", NANPA must initiate a new relief project when the forecasted exhaust is within 36 months.

5.13 Routing Number Administrator's Responsibilities for NPA Relief

This section identifies required relief planning functions that are related to the Routing Number Administrator's (RNA) functions as specified in these guidelines. These functions are identified because they are currently performed in conjunction with non-dialable pseudo-ANI (p-ANI) assignment. The objective of these functions is to promote effective and efficient p-ANI utilization and thereby help ensure the adequate supply of p-ANI numbers.

NPA relief planning functions included in this section are as follows:

The RNA tracks p-ANI assignments within NPAs to ensure effective and efficient utilization of numbering resources.

Upon notification from NANPA, the RNA shall notify all E9-1-1 Service Providers [Selective Router (SR) and Automatic Location Identification (ALI) Service providers], Mobile Positioning Centers (MPC), VoIP Positioning Centers (VPC), Wireless Service Providers and Public Service Answering Points (PSAP) with the following information by forwarding the NANPA planning letter:

- The geography affected by the NPA relief implementation plan
- NPA(s) affected
- The date permissive dialing begins
- The date mandatory dialing begins
- The date the NPA is implemented (if not the date mandatory dialing begins)

The RNA will participate on any NPA relief E9-1-1 task force meetings scheduled and provide updates to the E9-1-1 Service Providers, MPCs, VPCs, Wireless Service Providers and PSAPs when necessary.

When an NPA split is to be implemented, the RNA shall not assign p-ANI resources in a new NPA until the permissive dialing date.

When an NPA overlay is to be implemented, the RNA shall not assign p-ANI resources in the new NPA until the new overlay NPA has been implemented.

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.

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[7]

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.[8] 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:

6.3.1 Concentrated Growth Overlay

A concentrated growth overlay may be considered where the majority of the new telephone numbers are expected to be concentrated in one section of the existing NPA. For example, a fast growing metropolitan area and a sparsely populated rural area could exist within the same NPA. The overlay NPA would be assigned initially to the section of the NPA experiencing the fastest growth, and new NXXs in that section would be assigned from the new NPA. As the NXXs allotted to the rural area near exhaust, the overlay boundaries could expand. For this option to be practical there must be a sufficient number of available NXXs to serve the non-overlay area and these must be designated for use only in the non-overlay area. This implies that NANPA must initiate the NPA relief planning process earlier than required if this option is to be feasible. Further, enforcement of mandatory 10-digit local dialing within the concentrated overlay or allowance of continued 7-digit dialing outside the concentrated overlay may be difficult for some SPs to manage within a single NPA. A concentrated growth overlay may cause customer dialing confusion and additional technical work for some SPs, and may require a longer implementation interval.

6.3.2 Boundary Elimination Overlay

With a boundary elimination overlay, the NPA requiring relief is adjacent to an NPA with spare capacity. The boundary between these two NPAs is eliminated, and available NXX codes from the adjacent NPA are assigned within the original NPA boundary where relief is required. An appropriate use of boundary elimination might be in a state or province consisting of two NPAs, where one NPA has a considerable amount of relief life left. This solution has the advantage of not immediately requiring a new NPA code, but it also shares a limitation of boundary realignment because it offers shorter-term relief. Further, a boundary elimination overlay may require additional technical work for some SPs, and may require a longer implementation interval.

6.3.3 Multiple Overlay

The multiple overlay strategy may be considered where relief is required in two or more NPAs. For example, this solution may be appropriate in a metropolitan area where two or more NPAs cover a small geographic area and where it would be difficult to implement another kind of relief. The new NPA would be assigned to overlay the multiple existing NPAs serving the entire metropolitan area. As another example, a new NPA could be assigned for new growth within an entire state or province where more than one NPA exists. Multiple overlays may require additional technical work for some SPs, and may require a longer implementation interval.

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[7] 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.

[8] 47 CFR §52.19 (c) (3) (ii).

6.3.4 Technology-Specific or Service-Specific Overlay

These overlays occur when a new area code is introduced to serve the same geographic area as one or more existing area code(s) and numbering resources in the new area code overlay are assigned to a specific technology(ies) or service(s). State commissions may not implement a technology-specific or service-specific overlay without express authority from the FCC.[9] Such overlays are not feasible where local number portability and/or thousands-block pooling have been implemented. For purposes of relief planning, a technology-specific or service-specific overlay shall not be considered by the NANPA or the industry.

A state commission seeking delegated authority from the FCC to implement a technology-specific or service-specific overlay should discuss why the numbering resource optimization benefits of the proposed overlay would be superior to implementation of an all-services distributed overlay.[10]

6.4 Other Relief Methods

A combination of the methods described above may be used. For example, a concentrated growth overlay could be assigned initially to a section of an NPA experiencing fast growth, and as more relief is required, the section served by two NPAs could expand into a distributed or multiple overlays, as demand requires. Other combination of relief methods may be appropriate. Each NPA requiring relief must be analyzed on the basis of its own unique characteristics with regard to demographics, geography, regulatory climate, technological considerations, projected exhaust, and community needs and requirements.

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.

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.

7.3 Customer Calling Patterns

Existing and planned local calling areas should be considered during the planning process and retained, wherever practical, along with their existing or planned dialing arrangements. This may prevent regulatory policy delays during implementation and/or unexpected changes to the final plan.

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[9] 47 CFR §52.19 (c) (4). See also criteria outlined in FCC 01-362 ¶67-94.

[10] See FCC 01-362 ¶ 81-94.

7.4 Rate Center Consolidations

Any pending rate center consolidation plans should be considered during a relief planning meeting. Once a regulator makes a decision on rate center consolidation, the Relief Planner should obtain applicable documentation.

7.5 LNP Technical Considerations

Any technical issues related to LNP should be considered during a relief planning meeting. Since the introduction of LNP, industry experience shows that compliance with LNP requirements is more difficult with some alternatives of NPA relief (e.g., geographic splits, boundary realignments) than others (e.g., all-services distributed overlays).

7.6 Other Technical Considerations

Any other technical issues should be considered during a relief planning meeting. As telecommunications devices and services become increasingly more complex, industry experience shows that some alternatives of NPA relief are significantly more technically challenging to implement.

8 Updating BIRRDS and LASS

At least six (6) months prior to the start of permissive dialing, NANPA shall provide Telecom Routing Administration (TRA) with updates to the iconectiv Business Integrated Routing and Rating Database System (BIRRDS), and LIDB Access Support System (LASS)[5] in order for TRA to update the affected records. Notification to the industry should appear six (6) months prior to the start of permissive dialing in the LERG Routing Guide, which is used for message and call setup routing. Ninety calendar days prior to the start of permissive dialing, the updates should appear in BIRRDS output products. Prior to the NPA relief date, the updates should be reflected in the LIDB Access Routing Guide (LARG), which is used for Alternate Billing Service (ABS) query routing.

9 Routing to the New NPA Code

For an NPA split, a test number providing an announcement that calls have reached a termination in the new NPA should be made available at least 90 calendar days prior to the start of permissive dialing and remain available throughout the entire permissive dialing period. The test number will enable all SPs and other entities to do the necessary testing to ensure that the proper routing changes have been made to direct calls to the new NPA beginning on the permissive dialing date. Such changes should be made prior to the permissive dialing date, rather than during the permissive dialing period. If customers cannot dial the new NPA during the permissive period because some SPs did not make the necessary changes, the usefulness of the permissive dialing period is negatively impacted.

For an overlay, a test number providing an announcement that calls have reached a termination in the new NPA should be made available at least 90 calendar days prior to the introduction of the new NPA, and should remain available through implementation of the new NPA. The test number will enable all SPs and other entities to do the necessary testing to ensure that the new NPA is provisioned in network elements to complete calls to the new NPA, and that the new NPA is provisioned in operational support systems and applicable industry databases. Such testing may occur during permissive dialing and mandatory dialing, depending on the timing of mandatory dialing and the implementation of the new NPA.[11]

A suggested text for the recording to be on these test numbers is as follows: “You have successfully reached the new (insert state/province/country and NPA) area code.”

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[5] A recommended checklist of additional activities concerning the exchange of data/information that should be undertaken by NANPA to assist in the smooth implementation of any NPA relief is found in Appendix A.

[11] The mandatory dialing date and the implementation of the new NPA may or may not be the same date.

10 A Permissive Dialing Period

10.1 Permissive Dialing Period for Split or Boundary Realignment

For a geographic split or boundary realignment, a permissive dialing period should precede mandatory dialing of the new NPA code. The length of the permissive dialing period may vary depending on regulatory directive and the amount of time required for the above activities. A decision regarding the length of the permissive dialing period, if required, must be a part of the overall plan. In an NPA split or boundary realignment, the overall plan should also include the length of time before a central office code that has moved to the new NPA will be re-assigned in the old NPA once permissive dialing has ended (post mandatory). When establishing transition schedules, consideration should also be given to avoiding network changes during the busiest times of the year. Other scheduling concerns include customer education efforts and network and OSS changes.

The length of the permissive dialing period is determined by regulatory directive or industry consensus. When necessary, this period should allow sufficient time for customers to:

- revise printed materials (e.g., stationery, business cards, labels, bills, etc.)
- reprogram equipment that stores and analyzes telephone numbers (e.g., PBXs, cellular phones, modems, speed call lists, alarm company automatic dialers, and other automatic dialers)
- update directory listings
- notify customers and business associates, as well as friends and family
- change advertising (e.g., print ads, classified ads, promotional materials, etc.)
- update non-telephony databases and applications that use telephone numbers as an identifier (e.g., many smartphone apps, retail reward programs, etc.)

NPA splits require the establishment of a permissive dialing period during which calls placed to the area to be served by the new NPA can be completed whether the new or the existing NPA code is dialed by the caller. During this time, changes are made to business telephone systems, wireless devices, alarm system networks and individual subscribers' custom calling feature lists. In addition, ANI information and billing/ordering systems may be modified to handle the new NPA code. Central office codes designated to move to the new NPA are shown in the LERG Routing Guide as active in both the old and new NPAs during this time period.

An extended permissive dialing period for certain specific NXX codes, e.g., wireless or alarm, especially where LNP and/or thousands-block number pooling have been implemented, shall be avoided.

10.2 Permissive Dialing Period for All-Services Distributed Overlay

A permissive 7- or 10-digit local dialing period should precede mandatory 10-digit local dialing and the introduction of the new NPA code. The length of the permissive dialing period may vary depending on regulatory directive and the amount of time required for the above activities. During the permissive dialing period in an initial overlay, callers may originate local intra-NPA calls with or without dialing the NPA. This period allows entities to reprogram service and automatic dialing equipment to outpulse ten digits instead of seven. Alarm systems, for example, may be impacted where 10-digit local dialing has not been previously permitted. Other examples include life safety systems and medical monitoring devices, PBXs, fax machines, Internet dial-up numbers, wireless phone contact lists, call forwarding settings, etc.

When mandatory 10-digit local dialing has been implemented prior to an initial overlay, a permissive dialing period is not necessary. With a second or subsequent NPA overlay in a given geographic area, a permissive dialing period is not necessary because all callers are already dialing local calls on a 10-digit basis.

11 ANI and Records Conversion

ANI and records conversion on a central office-by-central office basis should begin on or after the start of permissive dialing. These ANI conversions usually take place over two to three months and should not take place prior to permissive dialing because of potential problems with CLASS[SM] services.

Toll Free SMS/800 database ANI record conversion should begin at least two months prior to permissive dialing. This record conversion is done within the SMS/800 database and is separate from the central office-by-central office ANI record conversion above.

It is recognized that the tasks of ANI and records conversion are complex and interdependent and that these efforts must be coordinated. Moreover, it is further recognized that records conversion can occur either before or after ANI conversion. Accordingly, for each NPA split/overlay, the time of the records conversion, whether it occurs before or after ANI conversion, will be coordinated by the industry during relief planning and implementation.

12 SP Responsibilities for NPAC Records Conversion

To ensure accurate call processing, local number portability (LNP) databases must be updated when an NPA split or boundary realignment is implemented. The Number Portability Administration Center (NPAC) relies on NANPA Planning Letters and informal interactions with SPs to determine which NXX codes are affected by each NPA split or boundary realignment, and will move to the new NPA.

While the NPAC uses an automated process to create a new NPA version of each NXX code affected by the split or boundary realignment, SPs have responsibilities to provide NPAC updated information after Planning Letter publication.

- NPAC Automated Processes
    - At the start of permissive dialing, NPAC network data is broadcast, just as any NXX code added to NPAC's network data is broadcast.
    - During permissive dialing, the NPAC accepts messages about ported/pooled numbers affected by the split or boundary realignment using either the old or new NPA. However, during the permissive dialing period, all broadcasts of ported/pooled numbers for the NXX codes affected by the NPA split or boundary realignment will reflect only the new NPA.
    - At the end of permissive dialing, the old NPA versions of the NXX codes moving to the new NPA are deleted. This deleted NXX code information is broadcast, just as any NXX code deleted from NPAC's network data is broadcast.

- SP Responsibilities
    - After the NPAC automated processes are completed, each SP shall ensure the accuracy of its data and immediately notify the NPAC Help Desk see https://www.numberportability.com/resources/contact-iconectiv/ or call 844-820-8039) of any discrepancies.
    - Once a Planning Letter has been issued, it is the responsibility of the SP to update its NXX code(s) in the NPAC under the old NPA for all subsequent changes (adds, modifications, disconnects). For example, if an SP opens an NXX code in NPAC during the permissive dialing period, the NXX code(s) must be opened in NPAC by the SP under the old NPA to ensure its inclusion in the automated process described above.

Although NPAC attempts to capture all changes introduced by an NPA split or boundary realignment, SPs should contact the NPAC Help Desk (see https://www.numberportability.com/resources/contact-iconectiv/ or call 844-820-8039) to confirm that NPAC is aware of any last minute changes in the list of NXX codes affected by the split or boundary realignment.

[SM] CLASS is a service mark of Telcordia Technologies, Inc.

13 Mandatory Dialing

The end of the permissive dialing period is the date that mandatory dialing of the new NPA code begins (in an NPA split or boundary realignment) or the date that the new dialing pattern is required (in an overlay). All calls to both the old and new NPA codes must be dialed with the correct NPA. All misdialed calls will be intercepted by a recorded announcement.

Prior to the end of permissive dialing in an NPA split or boundary realignment, SPs shall complete all customer number (NPA) changes. These changes shall be completed no later than the mandatory dialing date for all customers assigned numbers from NXX codes that are moved to the new NPA (see Section 6.1).

Once the date for mandatory dialing has been established, changes to the date should be avoided as much as possible to ensure clear and concise customer education communications, to prevent unnecessary customer and SP confusion, and to minimize rescheduling or additional changes to SPs' networks. However, if a change in the mandatory dialing date is ordered, the new mandatory dialing date shall be made known to all parties no later than 90 calendar days prior to the new date if the date is being advanced, or at least 90 calendar days prior to the original mandatory dialing date if the date is being moved out. This is necessary for SPs to make modifications to customer education materials and the timing of the distribution of such materials.

13.1 Recorded Announcement

For NPA splits or boundary realignments, a specific recorded announcement shall be played after the end of the permissive dialing period when a caller dials the old NPA for a number that moved to the new NPA. The typical announcement directs the caller to hang up and redial with the new area code. A suggested text for this type of recording for a split or boundary realignment is as follows: "The area code for the number you dialed has changed to (insert NPA), please hang up and dial the number using the new area code (insert NPA)." NPA split or boundary realignment announcements typically run for a minimum of 30 calendar days, but the period should be determined by the industry, or the regulatory authority.

For NPA overlays, a specific recorded announcement shall be played after the end of the permissive dialing period when callers dial only seven digits. The typical announcement directs the caller to hang up and redial including the area code. A suggested text for this type of recording for an overlay is as follows: "The area code must be used when dialing this number, please hang up and dial again." NPA overlay announcements should[12] remain in place indefinitely.

14 Toll Free Relief Planning

In order to set aside an adequate supply of relief NPAs, NANPA shall request a forecasted exhaust from the SMS/800 Number Administration Committee (SNAC) on a semi-annual basis. When the forecasted exhaust is within 30 months, the NANPA shall notify the industry, and the industry shall determine if there is a need for any relief planning or implementation meetings (plans for call-through testing, date numbers available for reservations in SMS/800, date calls are expected to be completed in the new NPA, etc.)

It is expected that the NANPA shall assign a relief NPA and announce its availability in 24 months via a NANPA Planning Letter.

15 Maintenance of These Guidelines

These guidelines are periodically updated to reflect changes in industry practices or national regulatory directives. Questions regarding these guidelines may be directed to https://www.nationalnanpa.com/contact_us/index.html.

[12] Unless directed otherwise by a state commission.

16 Glossary

Affected Parties	Affected Parties are those SPs that a) have applied for and/or received central office code (NXX) assignments or reservations and/or thousands-block (NXX-X) assignments or reservations within the NPA per Section 16.2 of the Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines (ATIS-0300119); and/or b) are materially affected by decisions made via the consensus process during NPA relief planning activities for the affected NPA.
ANI Conversion	The process by which the NPA portion of the calling party's automatic number identification (ANI) from end offices located in the new NPA changes from the old NPA to the new NPA.
Audit	The accumulation and evaluation of evidence about documented information of an auditee to determine and report on the degree of compliance with INC industry guidelines.
Auditee	The SP/NANPA/PA that is the subject of an audit.
Auditor	The FCC or its other designated agents perform audits of US numbering resources (FCC 00-429 ¶ 90). State Commissions also may conduct audits. (FCC 01-362 ¶101).
CLASS	Custom Local Area Signaling Service (CLASS) is one of an identified group of network-provided enhanced services. *Note:* A CLASS group for a given network usually includes several enhanced service offerings, such as incoming-call identification, call trace, call blocking, automatic return of the most recent incoming call, call redial, and selective forwarding and programming to permit distinctive ringing for incoming calls.
CO Code Administrator	Entity(ies) responsible for the administration of the NXXs within an NPA. In the United States and its territories, this is currently the NANPA. See also 47 CFR §52.15.
CO Code Holder	An assignee of a pooled or non-pooled central office code (NPA-NXX). A CO Code Holder is identified in the LERG™ Routing Guide as the NPA-NXX-A record holder. In the Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines (TBCOCAG, ATIS-0300119), the responsibilities of an assignee for a pooled NXX are defined in Section 8.2, and the responsibilities of an assignee for a non-pooled NXX are defined in Section 8.3.
Conservation	Consideration given to the efficient and effective use of a finite numbering resource in order to minimize the cost and need to expand its availability, while at the same time allowing the maximum flexibility in the introduction of new services, capabilities and features.
Consensus	Consensus is established when substantial agreement has been reached among Affected Parties or their designated representative participating in the consideration of the subject at hand. Substantial agreement means more than a simple majority, but not necessarily unanimity. Other interested members of the industry that are not Affected Parties shall have the opportunity to express their views and to influence the opinions of Affected Parties, but their opinions are not considered in determining whether consensus has been achieved. Under some circumstances, consensus is achieved when the minority no longer wishes to articulate its objection (An expanded version of this definition is available in the ATIS Operating Procedures).
Exchange or Exchange Area	A geographical area established by a Bell Operating Company (BOC) for administration and pricing of telecommunications services in a specified area that usually embraces a city, town, or village and its environs.

Jeopardy NPA	A jeopardy condition exists when the forecasted and/or actual demand for CO Code resources will exceed the known supply during the planning/implementation interval for relief. Accordingly, pending exhaust of CO Code resources within an NPA does not represent a jeopardy condition if NPA relief has been or can be planned and the additional CO Codes associated with the NPA will be implemented in time to satisfy the need for new CO codes.
Mandatory Dialing Date	As a result of NPA code relief activity, the date on which the permissive dialing period ends. In the case of an NPA split or boundary realignment, the mandatory dialing date is when all calls to both the old and new NPA codes must be dialed with the correct NPA, and all customer number changes must be completed for customers assigned numbers from NXX codes that are moved to the new NPA.
NANP (North American Numbering Plan)	A numbering architecture in which every station in the areas served by the NANP is identified by a unique ten-digit address consisting of a three digit NPA code, a three digit central office code of the form NXX, and a four digit line number of the form XXXX, where N represents the digits 2-9 and X represents any digit 0-9. It is the basic numbering scheme for the telecommunications networks located in American Samoa, Anguilla, Antigua, Bahamas, Barbados, Bermuda, British Virgin Islands, Canada, Cayman Islands, Dominica, Dominican Republic, Grenada, Jamaica, Montserrat, St. Kitts & Nevis, St. Lucia, St. Vincent, Turks & Caicos Islands, Trinidad & Tobago, and the United States (including Puerto Rico, the U.S. Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands) [47 CFR §52.5 (d)].
NANPA (North American Numbering Plan Administrator)	The NANPA is responsible for the neutral administration of NANP numbering resources, subject to directives from regulatory authorities in the NANP member countries. (See also 47 CFR §52.7 (e).) The NANPA is an impartial non-governmental entity that is not aligned with any particular telecommunications industry segment.[13] Under contract to the FCC, NANPA's responsibilities include assignment of NANP resources, and, in the U.S. and its territories, coordination of area code relief planning and collection of utilization and forecast data. See also 47 CFR §52.13.
NPA	Numbering Plan Area, also called an area code. An NPA is the three digit code that occupies the A, B and C positions in the ten digit NANP format that applies throughout the areas served by the NANP. NPAs are of the form NXX, where N represents the digits 2-9 and X represents any digit 0-9. In the NANP, NPAs are classified as either geographic or non-geographic. a) Geographic NPAs are NPAs which correspond to discrete geographic areas served by the NANP. b) Non-geographic NPAs are NPAs that do not correspond to discrete geographic areas, but which are instead assigned for services with attributes, functionalities or requirements that transcend specific geographic boundaries. The common examples are NPAs in the N00 format, e.g., 800.
NPA Code Relief	NPA code relief refers to an activity that must be performed when the CO Codes within an NPA near exhaust. Providing code relief to such an NPA normally takes the form of assigning a new NPA for an NPA split or overlay. Another option is changing the boundary of the existing NPA.
NPA Relief Date	The date on which Central Office codes (NXXs) may be assigned in a new NPA as a result of area code relief activity.

[13] Administration of the North American Numbering Plan, Report and Order, CC Docket No. 92-237, 11 FCC Rcd 2588, 2608 (1995) (NANP Order).

North American Number Plan Numbering Resource Utilization/Forecasting (NRUF) Report	The NANPA gathers forecast and utilization information to monitor and project exhaust in individual NPAs/area codes as well as in the NANP overall. This semi-annual report includes number utilization information as well as a five-year forecast of demand by year. For more detailed information, see the North American Numbering Plan Numbering Resource Utilization/Forecast (NRUF) Reporting Guidelines (ATIS-0300068).
Permissive Dialing Period	The time frame that begins with the introduction of the new NPA and ends with mandatory dialing. During the permissive dialing period, a call can be completed with either the old or the new dialing pattern.
Pooling Administrator (PA)	The entity or entities responsible for administering a thousands-block number pool. (47 CFR § 52.7 (g)). The Pooling Administrator is responsible for the neutral administration of thousands-blocks from Central Office (CO) Codes in areas where thousands-block number pooling has been ordered or implemented. The PA is an impartial non-governmental entity that is not aligned with any particular telecommunications industry segment and is under contract to the FCC.
Protected Code	A central office code assigned in one NPA that is not available for assignment in an adjacent NPA in order to permit 7-digit dialing across the NPA boundary.
Protected Route	A route where the local calling scope from one or more rate centers to other rate centers across NPA boundaries permits either 7- or 7 and 10-digit dialing across the NPA boundary. In the case of a protected route with 7-digit dialing, a central office code assigned in one specific geographic area of an NPA is not available for assignment in a specific geographic area of an adjacent NPA, but the code may be assigned outside the identified geographic area of the adjacent NPA or local calling scope.
Rate Center	Rate Center is used for numbering resource applications and reports to associate telephone numbers with a geographic area, as defined by the relevant regulatory agency. A Rate Center is also a uniquely defined point located within an exchange area from which mileage measurements are determined. These measurements can be used with the tariffs in the message rating processes.
Records Conversion	The process by which all appropriate records are converted to the new NPA. All documents that require an area code must indicate the new NPA when appropriate (e.g., access service request).
Service Provider	The term “service provider” refers to a telecommunications carrier or other entity that receives numbering resources from the NANPA, a Pooling Administrator or a telecommunications carrier for the purpose of providing or establishing telecommunications service. For the purposes of this part, the term “service provider” includes an interconnected VoIP service provider. (47 CFR §52.5 (e)).
Service Provider Consultant (SPC)	A consultant authorized by a Service Provider to request numbering resources on the Service Provider’s behalf from the NANPA or the Pooling Administrator.
SMS/800	The 800 Service Management System (SMS) is the main operations support system used to create and update Toll Free records that are then downloaded to Service Control Points (SCPs) for processing Toll Free Service calls. The system is used by Resp Orgs to manage and administer SMS/800 records.
SNAC	SMS/800 Number Administration Committee (ATIS Committee). SNAC identifies, develops and implements the resolution of issues impacting existing toll free products and services and evolving technologies affecting future developments in the toll free industry. The Committee provides recommendations to the owner/manager of the SMS/800 regarding design and management issues that have a direct effect on the system users, and maintains the Industry Guidelines for Toll Free Number Administration[14] (ATIS-041700-001).
Testing Period	Time frame prior to permissive dialing that the new NPA will be open so that carrier and other entities can begin testing their networks.

[14] Download the latest version from the ATIS website: https://www.atis.org

Thousands-Block (NXX-X) Number Pooling	Thousands-block number pooling is a process by which the 10,000 numbers in a central office code (NXX) are separated into ten sequential blocks of 1,000 numbers each (thousands-blocks), and allocated separately within a rate center. (47 CFR §52.20 (a)).

Annex A

NANPA NPA Relief Checklist

The following are specific NANPA NPA Relief agenda items that occur during NANPA NPA Relief Planning meetings:

1. __ATTENDANCE
2. __WELCOME AND INTRODUCTIONS
3. __REVIEW INDUSTRY GUIDELINES
4. __CONSENSUS DEFINITION
5. __RECOMMENDED RELIEF ALTERNATIVE
6. __STATEMENTS FOR THE RECORD
7. __STATUS OF NPA[15]
8. __INITIAL PLANNING DOCUMENT
9. __NEW ALTERNATIVES
10. __DISCUSSION OF RELIEF ALTERNATIVES
11. __ELIMINATION OF RELIEF ALTERNATIVES
12. __DIALING PLAN
13. __STATUS OF JEOPARDY PLAN (when applicable)
14. __IMPLEMENTATION SCHEDULE
    - Permissive dialing date_____
    - Mandatory dialing date_____
    - End of recorded announcement date (if applicable)_____
    - Recovery of protected codes (if applicable)
    - Need for SP to provide test number once relief is chosen
    - Earliest effective date for NXXs in the new NPA (in service date)
    - Earliest date NXXs in the new NPA may be requested
    - Customer Education/Industry Subcommittee
15. __MEDIA INTERFACE
16. __SUBMISSION TO REGULATORY AUTHORITY
17. __CONFERENCE CALL TO APPROVE MINUTES AND FILING
    - 2 weeks to distribute minutes*_____
    - 3 weeks to hold conference call for approval*_____
    - 6 weeks to prepare filing after completion of planning*_____

* - replacement interval may be agreed upon by industry participants

The following are specific NANPA NPA Relief activities for the exchange of data/information to assist the industry in the smooth implementation of any NPA relief. NANPA will:

1) Advise industry that AOCNs should avoid last minute changes to data (e.g., information contained in the BIRRDS (the source of the iconectiv LERG Routing Guide and the source of Vertical & Horizontal Master Data)) that is directly related to NPA relief activity.
2) Advise industry that service providers should communicate with each other regarding changes in trunking arrangements associated with NPA relief activities.
3) Advise industry to avoid NXX activation and/or changes occurring simultaneously with an NPA split or other relief activity.
4) Include TRA on their distribution of information associated with NPA relief activity.

[15] Relief planning works with NANPA Code Administration and service providers to keep unavailable codes at a minimum. NANPA Code Administration and the National Pooling Administrator will provide status updates (e.g., code and block availability, assignment data, and any forecasting information).

5) Advise industry of necessary exchange of ANI conversion schedules between SPs.
6) Advise industry of need for SPs to provide system (CARE) conversion schedule to IXCs and to TRA.
7) Consult with the industry to determine whether to hold the Industry NPA Relief Implementation via a face-to-face meeting instead of via conference call if the chosen plan presents unusual implementation factors.
8) Advise industry that use of protected codes (NXXs), which permits 7-digit dialing, should be eliminated as part of the NPA code relief planning process unless the appropriate regulatory authority directs otherwise.

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

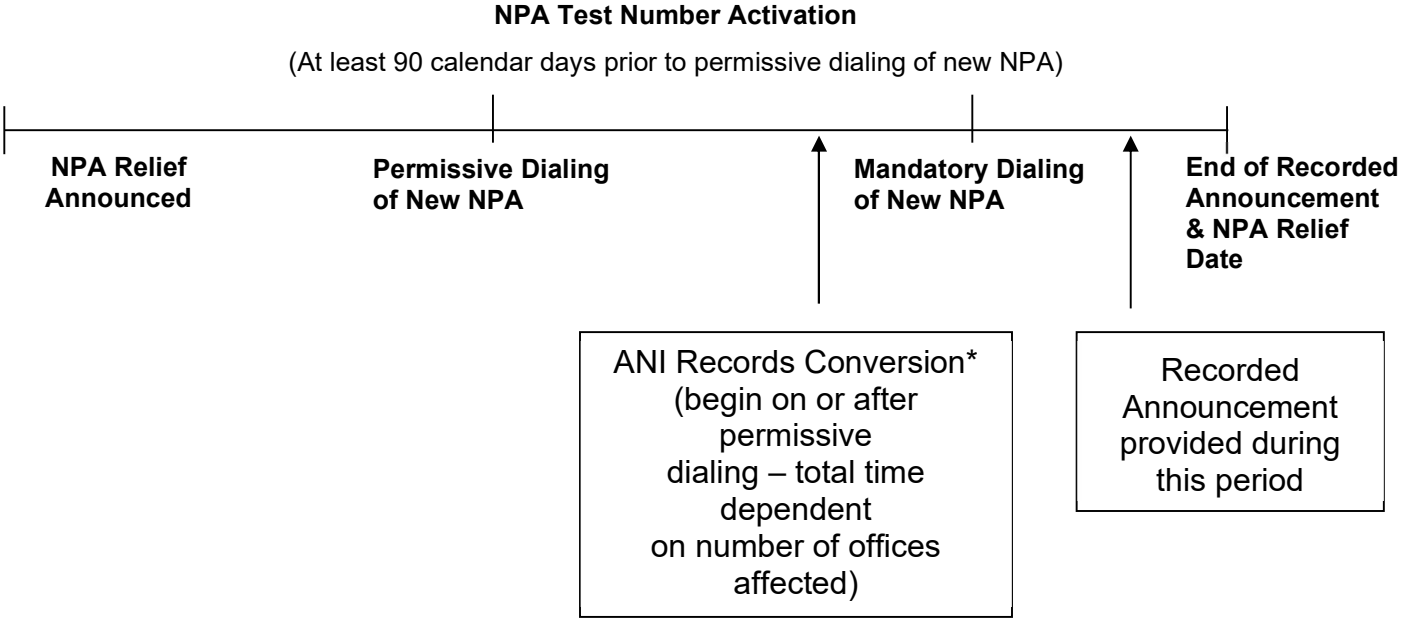
- hardware and software upgrades to switching systems
- modification to or replacement of some operations support systems
- modification to operator services switches and/or systems
- directory assistance impacts
- 911 system impacts
- directory changes
- public notification/education requirements
- 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)

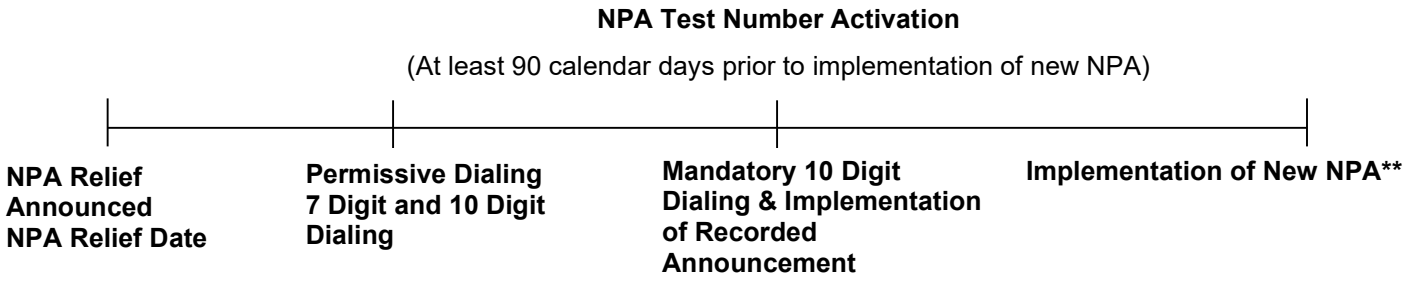
Annex C

Industry Notification of NPA Relief Activity Timeline for Relief Via an NPA Split or Boundary Realignment



* Records Conversion may occur before or after ANI Conversion

Industry Notification of NPA Relief Activity Timeline For Relief Via an NPA Overlay



**The mandatory 10 digit dialing date and the implementation of the new NPA may or may not be the same date.

Annex D

Summary of Model Used by NPA Relief Planner

NANPA developed a mechanized tool to help project the life of a new NPA. The tool provides data comparison and validation, and permits easy manipulation to accommodate various alternatives.

The model allows the planner to:

- Use rate center, CO Code, and type of service provider data from both the current and the same month but the previous year's iconectiv LERG Routing Guide
- Use the most current NRUF forecast data
- Use one of three options for growth calculations

    - uniform application of NRUF forecasts across all rate centers in the NPA; or
    - per rate center projection based on historical growth; or
    - per rate center growth projection based on planner's input

It should be noted that the local industry might advise which option is the most relevant.

- Choose types of relief plans and determine lives based on the calculation option selected

The benefit of the model is its flexibility to permit real-time changes based on industry input at planning meetings.

A detailed explanation of how this model is executed can be found at www.nanpa.com.

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.

Annex F

Issues to be Considered During NPA Relief Implementation

It is not uncommon to experience customer issues with the introduction of a new area code. It is necessary, therefore, for the Service Providers (SPs) to recognize the potential customer issues that the regulatory commissions, the general public, and the telecommunications industry might experience with the introduction of a new area code, whether it is from a geographic split, an all-services overlay, or other type of area code relief. Since the introduction of a new area code can be such a complex endeavor, examples of potential customer issues and the possible causes that can generate these issues are listed in Tables 1 and 2.

When an SP attempts to address customer issues, certain information is needed, however not always known by the customer. The SP should attempt to get as much of the following information from the customer as possible

- the exact 10 digit number of both the calling and called parties and whether or not a 1010-CIC prefix was added to the called party;
- the local and/or long distance SP of the calling and called parties;
- the location of both parties;
- what type of call was made, e.g., wireless (roaming), wireline, PBX (Private Branch Exchange), PABX (Private Automatic Branch Exchange), VoIP, etc.;
- what the calling party encountered when the call was made.

The following tables provide some examples of situations and the possible causes that customers may encounter with the introduction of a new area code. This list is not inclusive of all situations.

[Note: In the tables below, “N/A” means the specific “situation” is not applicable (i.e., may not occur or if it does occur, it is not related to NPA relief) during the dialing period referenced in the table.]

Table 1: Area Code Split

SITUATION	DURING PERMISSIVE	AFTER PERMISSIVE
E-911 not working; ANI information not showing at PSAP.	E-911 databases not updated.	NPA specific trunks not installed when using MF signaling.
PSAPs unable to call into new NPA.	The service provider and/or the long distance carrier have not yet opened the new NPA for permissive dialing in its translations tables.	The service provider and/or the long distance carrier have not opened the new NPA in its translations tables and/or NPA specific trunks not installed when using MF signaling.
PSAPs unable to transfer calls to another PSAP using the new NPA.	PSAPs pre-programmed speed dialers not changed to dial the new NPA.	PSAPs pre-programmed speed dialers not changed to dial the new NPA and/or NPA specific trunks not installed when using MF signaling
Customers are not able to receive calls from, or place calls to, numbers that are changing to the new NPA using the old	The service provider and/or the long distance carrier have not yet opened the new NPA for permissive dialing in its translations tables and/or	The service provider and/or the long distance carrier have not opened

SITUATION	DURING PERMISSIVE	AFTER PERMISSIVE
and/or new NPA; this may be an in-state or out-of-state complaint.	translations tables are not set to accept the old and new NPA.	the new NPA in its translations tables.
Customers using pre-paid calling cards may not be able to complete calls to the new NPA.	The service provider and/or the long distance carrier have not yet opened the new NPA for permissive dialing in its translations tables.	The service provider and/or the long distance carrier have not opened the new NPA in its translations tables.
Caller ID information received by the called party might be confusing during permissive dialing due to the fact that the called party could receive both new or old NPAs.	Consumers may not be aware of the new NPA when it is delivered in the Caller ID information during permissive dialing; this situation will no longer exist after permissive dialing.	This situation will no longer exist.
Directory information has not been updated to reflect the change to the new NPA.	The service provider has not updated the appropriate directory database to reflect the change to the new NPA, however, this does not prevent the calling party from reaching the called party until mandatory dialing begins.	With printed directories, there may be delays in updating such information until the next publication cycle (typically once a year); this situation should not exist with directory assistance or online media.
Calls to ported or pooled numbers may not complete using the new NPA.	A service provider may not have performed the split process in its network elements (STPs/SCPs) or received a broadcast of a ported TN or pooled block in the new NPA.	A service provider may not have received a broadcast of a ported TN or pooled block in the new NPA.
Customer-programmed call forwarding, voicemail-paging, speed dialing features, auto-dialer devices (e.g., alarm company automatic dialers, law enforcement ankle bracelets) do not work.	This situation should not present itself until after permissive dialing; should this situation exist, the customer must reprogram call forwarding, voicemail-paging, and speed dialing features with the new NPA.	The customer must reprogram call forwarding, voicemail-paging, and speed dialing features with the new NPA.
ISDN customer's services do not work (may vary from company to company).	The customer must correctly program their telephone number (SPID) in the ISDN instrument.	The customer must correctly program their telephone number (SPID) in the ISDN instrument.
Calls via any dial-up modems, e.g., personal computers, fax machines, ATMs, etc., to the new NPA do not complete.	The service provider and/or the long distance carrier have not yet opened the new NPA for permissive dialing in their translations tables.	The service provider and/or the long distance carrier have not yet opened the new NPA in their translations tables and/or the customer must update the local dial-up

SITUATION	DURING PERMISSIVE	AFTER PERMISSIVE
		numbers with the new NPA into the applicable dial-up modems.
Pay-Per-View services don't work (may vary from company to company).	Pay-Per-View companies haven't updated their database.	Pay-Per-View companies haven't updated their database.
Calls to the old number just ring.	N/A	A service provider may not have the appropriate translations to access the recorded announcement.
Calls to the old number reach a recording announcing the new area code instead of being completed.	The service provider may have skipped the permissive dialing and converted to mandatory dialing to the new NPA instead.	N/A
Calls to the old number reach a "not-in-service" recording instead of announcing the new area code.	N/A	A service provider may not have the appropriate translations to access the proper recorded announcement concerning the new NPA.
Calls to the old number are still completing.	N/A	A service provider has not converted to mandatory dialing.
Businesses are missing customer calls that are trying to call them using the new NPA.	The service provider and/or the long distance carrier have not yet opened the new NPA for permissive dialing in its translation tables.	The service provider and/or the long distance carrier have not yet opened the new NPA for mandatory dialing in its translation tables.
Businesses with PBXs/PABXs cannot make calls to the new NPA.	Customers with PBXs/PABXs have not updated their equipment with the new NPA.	Customers with PBXs/PABXs have not updated their equipment with the new NPA.
Businesses want their old numbers back or request to reserve their old numbers.	N/A	All numbers that change during a split cannot be retained or reserved.

Table 2: Area Code Overlay

SITUATION	DURING PERMISSIVE	AFTER PERMISSIVE
E-911 for new NPA not working.	N/A	NPA specific trunks not installed when using MF signaling.

SITUATION	DURING PERMISSIVE	AFTER PERMISSIVE
PSAPs unable to call or unable to transfer calls to another PSAP.	N/A	PSAP pre-programmed speed dialers not changed to dial 10-digits and/or NPA specific trunks not installed when using MF signaling.
Customers are not able to make 10-digit calls.	The service provider and/or the long distance carrier have not yet opened 10-digit permissive dialing in their translation tables.	The service provider and/or the long distance carrier have not yet opened 10-digit dialing in their translation tables.
Customers are not able to make 7-digit local calls.	The service provider and/or long distance carrier has skipped permissive dialing and changed to mandatory 10-digit dialing.	N/A
Customers can still make 7-digit local calls.	N/A	The service provider has not yet converted to mandatory 10-digit dialing.
Burglar & Fire Alarms do not work.	N/A	Alarm panel must be reprogrammed for 10-digit dialing.
Secure Entry systems for building access, garage access, etc., do not work.	N/A	Secure Entry system must be reprogrammed for 10-digit dialing.
Utility Automatic Meter Reading (AMR) devices do not work.	N/A	AMR devices must be reprogrammed for 10-digit dialing.
Freeway Call boxes do not work.	N/A	Call boxes must be reprogrammed for 10-digit dialing.
Customer-programmed call forwarding, voicemail-paging, speed dialing features, auto-dialer devices (e.g., alarm company automatic dialers, law enforcement ankle bracelets) do not work.	N/A	The customer must correctly program 10-digits for call forwarding, voicemail-paging and speed dialing features.
ISDN customer's services do not work (may vary from company to company).	N/A	The customer must correctly program their telephone number (SPID) in the ISDN instrument.
Calls via any dial-up modems, e.g., personal computers, fax machines, ATMs, etc., do not complete.	N/A	The customer must reprogram the dial-up modems, e.g., personal computers, fax machines, ATMs, etc., to dial 10-digits.

SITUATION	DURING PERMISSIVE	AFTER PERMISSIVE
Businesses with PBXs/PABXs cannot complete a 7-digit local call.	N/A	Customers with PBXs/PABXs have not updated their equipment for 10-digit dialing.

Annex G

Technical Considerations

Implementation for either a geographic split or an overlay involves technical activities. This Appendix attempts to identify many of the technical activities. Some of the activities listed may not be applicable to all NPA Relief projects or all service providers.

The chart below lists potential technical activities and their applicability to a split or an overlay. Further explanation of these issues is addressed in the next section.

Technical Activities:	Split	Overlay
Translations & Testing	x	x
ANI Conversion schedules (including SMS/800 conversion)	x	
Switch Recorded announcements	x	x
911 Trunking (MF or SS7), Routing and Databases	x	x
911 Database	x	x
Operator Services Trunking: 0+/-, Busy-Verify, Itc, 411	x	x
Operator Services Database	x	
ISDN set changes	x	
Directories & Directory Assistance	x	x
Interconnection Issues/10-digit Signaling	x	x
Establish Communication channels	x	x
Freeway Call Boxes	x	x
OSS Conversion Date	x	x
BIRRDS Records (LERG Routing Guide)	x	x
Existing Cross-NPA 7-digit Dialing	x	x
Calling Card Database and Translations	x	
Test Numbers	x	x
Remote Call Forwarded Numbers	x	x
NPAC Database changes/ LRN Records and routing	x	

The following technical activities are generally associated with the implementation of a new area code.

Translations and Testing

Testing of translations to a new NPA or a change from seven to ten-digit dialing should be completed in accordance with the NGIIF Reference Document and its parts (https://www.atis.org).

ANI Conversion Schedules for NPA Splits

ANI and records conversion on a central office-by-central office basis should begin on or after the start of permissive dialing. These ANI conversions usually take place over two to three months and should not take place prior to permissive dialing because of potential problems with CLASSSM services.

Toll Free SMS/800 database ANI record conversion should begin at least two months prior to permissive dialing. This record conversion is done within the SMS/800 database and is separate from the central office-by-central office ANI record conversion above.

Switch Recorded Announcements

For NPA splits or boundary realignments, a specific recorded announcement shall be played after the end of the permissive dialing period when a caller dials the old NPA for a number that moved to the new NPA. The typical announcement directs the caller to hang up and redial with the new area code. A suggested text for this type of recording for a split or boundary realignment is as follows: “The area code for the number you dialed has changed

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[SM] CLASS is a service mark of iconectiv® LLC.

to (insert NPA), please hang up and dial the number using the new area code (insert NPA).” NPA split or boundary realignment announcements typically run for a minimum of 30 calendar days, but the period should be determined by the industry, or the regulatory authority.

For NPA overlays, a specific recorded announcement shall be played after the end of the permissive dialing period when callers dial only seven digits. The typical announcement directs the caller to hang up and redial including the area code. A suggested text for this type of recording for an overlay is as follows: “The area code must be used when dialing this number, please hang up and dial again.” NPA overlay announcements should16 remain in place indefinitely.

9-1-1 Trunking, Routing, and Databases

In either a split or an overlay, some SPs may have NPA-specific trunking if MF Signaling from the end office to the 911 tandem is used. Conversion to SS7 signaling is an alternative instead of adding additional MF trunks. Verification of 911 tandem router capabilities is needed. Some routers may only be able to support a maximum of 4 NPAs; therefore, another router may be required. In the case of a split, the 911 database must also reflect changes to the new NPA.

The following activities may need to be addressed:

- Notify Effected Parties
- Confirm new Emergency Service Number (ESN) has been established for new NPA
- Ensure Selective Routing Database (SRDB) table has new NPA built
- Notify PSAPs and County Coordinators
- Notify PSALI Customers
- Update PSAP equipment
- CLEC Trunk Order Requests submitted to Provider
- Trunk Orders Complete
- Build E911 Network/Tandem Translations
- Build NPA-NXX Tables
- Arrange Back ups
- Verify & Perform ALI/SR Processing
- Execute Split procedures and Updates to E911 Database
- Verify PSAP Work is Complete
- Activate E911 Network/Tandem Translations
- Complete post activity back-ups and monitoring

Note: PSAPs will start to see new NPA during permissive dialing in an NPA split.

Operator Services Trunking 0+, 0- Services, Intercept, Busy Verify, 411, or Others:

In either a split or an overlay, some SPs may have NPA-specific trunking. If MF signaling from the end office to the tandem is used, additional NPA specific MF trunks may be needed. Conversion to SS7 signaling is an alternative instead of adding trunks.

Operator Service Databases

Operator Service databases will need to be updated for NPA changes. In addition, correct out-pulsing from OSPS type systems and Information Call Completion systems must be assured for NPA changes.

ISDN Set Changes

Some customer premises ISDN handsets require full 10-digit telephone number (Service Profile ID, SPID) to be programmed with the new NPA.

Directories and Directory Assistance (DA) Database Updates

[16] Unless directed otherwise by a state commission.

The DA database information that is provided to directory publishers will need to reflect the new NPA in an NPA split or an overlay. Overlays require the new NPA to be listed in the directory. Directory Assistance and intercept operator database information will need to be updated to reflect the new NPA.

Interconnection Activities

In either a split or an overlay, some SPs may have NPA specific trunking if MF signaling from the end office to the tandem is used. Interoffice trunking to tandems may require special attention with an NPA change in a split, as some trunks may be NPA specific. Conversion to SS7 signaling is an alternative instead of adding MF trunks. Conversion to 10-digit signaling is generally completed prior to mandatory dialing making any customer complaint troubleshooting easier.

Establish Communication Channels Within the Industry

SPs should share contact information with other industry members for troubleshooting for the duration of the NPA relief activity.

Freeway Call Boxes

These services are sometimes provided on major state and Interstate highways and may need to be reprogrammed.

Operational Support Systems (OSS) Conversion Date In NPA Split

Updates must be made to OSS, including CABS, CARE, and CAS systems to reflect the new NPA. The conversion date should be coordinated with interconnected companies. PIC order changes can be affected if conversion dates are not shared.

BIRRDS Records (LERG Routing Guide)

Updates in BIRRDS or via AOCN must be completed for publication in the LERG Routing Guide and TPM™ Data Source. For example, in a geographic split, NPA-NXX changes are needed for those NXXs moving to the new NPA. For an overlay, changes from 7 to 10 terminating digits to end office and tandem signaling are mandatory.

Cross-Boundary (inter-NPA and/or inter-State) 7-digit Dialing Using Protected Codes and Routes

Any cross-boundary 7-digit dialing should be addressed during NANPA's initial relief implementation meeting.

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. 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.[17]

The use of protected routes, which also permits 7-digit dialing across NPA boundaries, shall continue unless otherwise directed by the appropriate regulatory authority.[18] 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.

Calling Cards

Calling cards associated with the new NPA in the area that is changing with a split may need to be reissued, and calling card companies must open the new NPA at the start of permissive dialing with a split and on the activation date of a new NPA with an overlay.

Obtain Test Numbers for New NPA

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

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

Test numbers to the new NPA are required and are published in the Planning Letter and the LERG Routing Guide. Service providers generally volunteer to request the NXX code from NANPA CO Code Administration (see TBCOCAG Section 16.3 Test Codes for New NPAs – Splits or Overlays for specific procedures) and establish the test number recording advising callers they have successfully completed a test call to the new NPA. NPAs with more than one LATA sometimes have a test number for each LATA. More than one service provider may provide the test numbers.

Update Remote Call Forwarding (RCF) Services

Remote call forwarded dialing from the switch are under control of the service provider. Changes to the NPA or changes from seven to ten-digit dialing are to be made by the SPs during the permissive dialing period. Customer programmable RCF services need to be updated by the customer; this may require specific customer education.

NPAC database changes

Each SP is responsible for updating its LRNs in the NPAC with the new NPA if its LRNs are from NXX codes moving to the new NPA in a split. SPs should coordinate such updates with the NPAC Help Desk (see https://www.numberportability.com/resources/contact-iconectiv/ or call 844-820-8039). NPAC users should refer to the NPAC M&P on NPA Splits (see https://portal.numberportability.com/login) and LNPA WG Best Practice 30, NPA Splits (see LNPA WG documents at www.numberportability.com), as well as section 12.0 of the NPA Code Relief Planning and Notification Guidelines.