

## Staff Briefing Papers

Meeting Date March 30, 2023

Agenda Item \*1

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Company All Telecommunications Carriers that Operate in the 507 Area Code

Docket No. P-999/M-22-461

**In the Matter of a Relief Plan for the Exhaust of the 507 Numbering Plan Area.**

Issues 1. Should the Commission approve an All-Services Overlay relief plan for the 507 Area Code?

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✓ **Relevant Documents**

**Date**

North American Numbering Plan Administrator – Initial Planning Document of Relief Plan for the Exhaust of the 507 Numbering Plan Area

August 23, 2022

Public Comment – M. Friedman

September 12, 2022

Public Utilities Commission – Transcripts for 507 Numbering Plan Area Public Hearing

December 13, 2022

Department of Commerce – Comments

January 3, 2023

The Joint Telecommunications Carriers – Comments

January 4, 2023

The Joint Telecommunications Carriers – Reply Comments

February 8, 2023

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

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## I. Statement of Issues

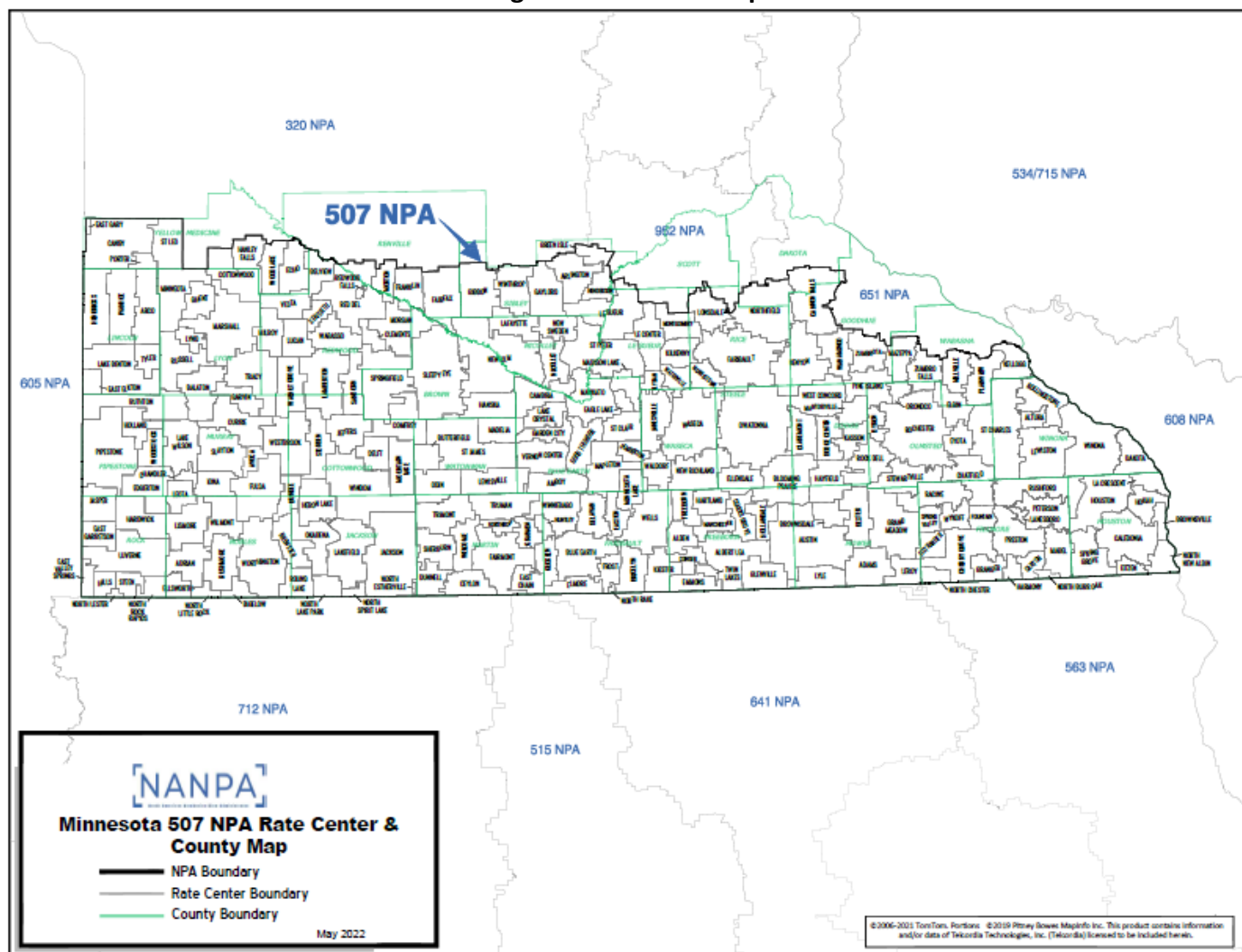
1. Should the Commission approve an All-Services Overlay relief plan for the 507 Area Code?

## II. Background and North American Numbering Plan Administration Report

The 507 Numbering Plan Area (NPA or area code) has been serving southern Minnesota since 1954. The 507 area code is projected to exhaust its Central Office Codes (CO or NXX codes) in the first quarter of 2025. Central Office Codes are commonly referred to as a prefix, i.e. the 441 in the following phone number: 507-441-1234.

Below is a map of the 507 area code which covers southern Minnesota's border with Iowa, including Marshall, New Ulm, Mankato, Owatonna, Rochester, and Winona among other communities:

Figure 1: 507 NPA Map<sup>1</sup>



<sup>1</sup> NANPA IPD, August 23, 2022, p. 50 of document.

The North American Numbering Plan Administrator (NANPA) is a neutral third-party that collects data to project when area codes will be exhausted and plans relief for these area codes.

On July 19, 2022, NANPA held a virtual meeting with industry members. At the meeting, NANPA reviewed their Initial Planning Document (IPD)<sup>2</sup>, which contained two relief alternatives:

*1) An all-services distributed overlay of the 507 area code*

For an all-services distributed overlay, a new area code is assigned to the same geographic area as the present 507 area code. New customers in the geographic area would be assigned the new area code. Current customers would retain their phone number. All customers would be required to use 10-digit dialing within and between the 507 and new area code. The overlay alternative is projected to last 37 years before needing another new area code, exhausting sometime in 2062.

*2) A geographic split of the 507 area code*

For a geographic split, the 507 area code would be split down the middle. One of the areas would retain the 507 area code, and the other would be assigned the new area code. NANPA has not made a recommendation as to which side of the split should be assigned a new area code. Within each area code, 7-digit dialing is permitted, but 10-digit dialing is required between the two sides.

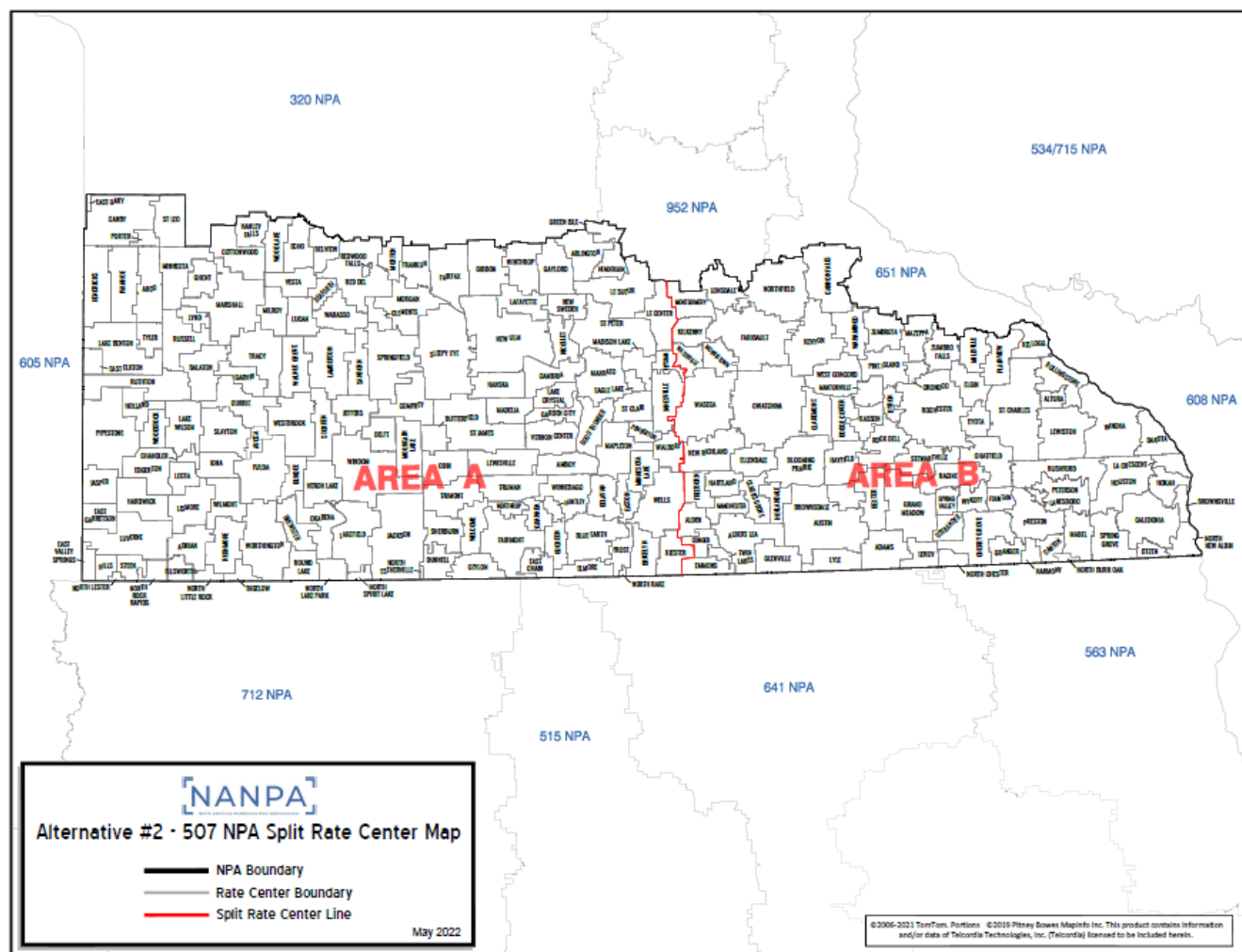
NANPA notes that a geographic split is much more difficult than an overlay and has not been implemented in the US since 2007.

In Figure 2 below, Area A would be to the west and encompass the municipalities of Marshall, New Ulm, and Mankato. This area code would last 36 years and exhaust in 2061. Area B would be to the east and encompass Owatonna, Rochester, and Winona. This area code is projected to last 41 years, exhausting sometime in 2066.

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<sup>2</sup> NANPA IPD, August 23, 2022.

Figure 2: Geographic Split of the 507 Area Code Map<sup>3</sup>



The industry recommends an overlay relief plan. It is the most consumer-friendly method. Conversely, the industry finds that a geographic split would present technical issues and require more customer education.

Minnesota has not yet implemented an overlay, but it will not be the first area code in the state to require 10-digit dialing. The 218 and 952 area codes have transitioned to 10-digit local dialing to accommodate the 988 Suicide and Crisis Lifeline.

After the Commission issues its decision, NANPA will perform the following tasks:

- 1) Assign the new area code.
- 2) Issue a press release in conjunction with the Commission.
- 3) Publish a planning letter.
- 4) Meet with the industry and immediately select dates for implementation.

<sup>3</sup> NANPA IPD, August 23, 2022, p. 60 of document.

The industry reached a consensus on a 13-month schedule to implement an overlay. The schedule does not have dates but has timelines to identify phases of implementation:

**Table 1: Timeframe of Implementation Schedule for the 507 Overlay<sup>4</sup>**

Task	Timeframe
Network preparation	6 months
10-digit dialing customer education	6 months
Effective date for new area code	1 month
<b>Total implementation</b>	<b>13 months</b>

### III. Party Comments

#### A. The Joint Telecommunications Carriers

The Joint Telecommunications Carriers<sup>5</sup> (or Joint Carriers) support an all-services overlay and a 13-month implementation schedule:

The 13-month period should provide adequate time for network preparation and customer education...<sup>6</sup>

The Joint Carriers say that an overlay is more equitable than a geographic split, because it does not create “winners” that can keep their 507 area code and “losers” that must change their area code.

An overlay could be more easily adapted by consumers. Mandatory 10-digit dialing is now the most prevalent dialing convention in the US. The Joint Carriers say that consumers can easily adapt to calling between area codes and using 10-digit dialing. Cellphones and some cordless phones let consumers choose a contact rather than dialing a number. Moreover, concerns about customers being confused by overlays have not been found in other area codes that have implemented an overlay throughout the US.

An overlay could be more effectively implemented by carriers. The Joint Carriers say that an overlay avoids technical problems when performing customers’ local number portability (LNP) requests. On the night when the area code is implemented, the Number Portability Administration Center (NPAC) updates its database, and carriers update their support systems at the same time, so that port requests can be completed properly. If this coordination fails, calls can be misrouted or denied.

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<sup>4</sup> NANPA IPD, August 23, 2022, p. 7.

<sup>5</sup> The Joint Telecommunications Carriers are: Cingular Wireless, Teleport Communications Group, Inc., AT&T – Local, New Cingular Wireless PCS, LLC, and Teleport Communications America, LLC (collectively “AT&T”); Citizens Telecommunications Company of Minnesota, LLC, and Frontier Communications of Minnesota, Inc. (collectively “Frontier”); CenturyTel of Chester, Inc. d/b/a CenturyLink, CenturyTel of Minnesota, Inc. d/b/a CenturyLink, Embarq Minnesota, Inc. d/b/a CenturyLink, CenturyLink Communications, LLC, Level 3 Communications, LLC, and Qwest Corporation (collectively “Lumen”); Sprint Spectrum, L.P., MetroPCS, Inc., and Aerial Communications, Inc. (collectively “T-Mobile”); and Cellco Partnership d/b/a Verizon Wireless, and MCI Metro Access Transmission Services LLC (collectively “Verizon”).

<sup>6</sup> The Joint Telecommunications Carriers comments, January 4, 2023, p. 8.

...when implementing a split, all carriers, nationwide, on the night that permissive dialing is implemented, must activate the new NPA in order for calls to complete to both the 507 NPA and the new NPA. While the Carriers make every effort to make the transition a smooth one, these challenges can be avoided altogether with an overlay.<sup>7</sup>

## **B. Department of Commerce**

The Department supports the all-services overlay option and a 13-month implementation schedule, saying that it would best serve the public interest. The Department discusses two issues that they say need to be addressed if the Commission approves an overlay.

### Permissive 1+10 Digit Dialing

Permissive 1+10 digit dialing is when a phone company allows a caller to put through a call in which they dialed a 1 before the area code. Service providers may or may not complete 1+10 digit dialing calls if they have the discretion to do so:

- 1) If service providers **do** complete the calls, local calls will be able to be placed without an intercept message.
- 2) If service providers **do not** complete the calls, local calls will be intercepted with a message telling callers not to dial 1 before the number.

The Department says that this “creat[es] a patchwork of calling requirements,” saying “requiring permissive 1+10 digit dialing is to the benefit of customers.”<sup>8</sup>

The Department says that:

What the Commission may wish to address is whether a 1+10 digit call within the same local calling area is to be completed at the service provider’s discretion, or whether completion of the call is mandatory.<sup>9</sup>

### Standardized Call-Intercept Messages

The Department writes that either relief option will require companies to use call-intercept messages if the call is not routed to the right party:

The Commission should consider approving standardized language for intercept messages associated with this area code relief effort.<sup>10</sup>

The Department recommends that the standard call-intercept messages should be used by all carriers unless they provide sufficient cause for not doing so.

## **C. The Joint Telecommunications Carriers’ Response to the Department**

The Joint Carriers respond to the two additional recommendations from the Department, saying that they both “impose undue burdens on carriers without creating a meaningful benefit

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<sup>7</sup> The Joint Telecommunications Carriers comments, January 4, 2023, p. 5.

<sup>8</sup> Department comments, January 3, 2023, p. 4.

<sup>9</sup> Department comments, January 3, 2023, p. 4.

<sup>10</sup> Department comments, January 3, 2023, p. 4.

to consumers.”<sup>11</sup>

#### Permissive 1+10 Digit Dialing

First, the Joint Carriers say that requiring permissive 1+10 digit dialing for local calls is unnecessary and potentially burdensome. They say that NANPA’s report recommends that it be left to each carrier’s discretion whether they want to implement permissive 1+10-digit local dialing. It is an industry best practice to allow 1+10-digit dialing, so most carriers will likely implement it anyway.

Some carriers may have technical limitations or business reasons why they cannot do it. Furthermore, seeking a waiver from the Commission would delay and complicate the overlay process.

Requiring carriers to implement permissive 1+10-digit dialing in the 507 NPA when they may have opted not to implement it in the 218 or 952 NPAs, an option allowed in the 988 Planning Letter, could result in inconsistent, more complicated, or costly implementations within a carrier’s network.<sup>12</sup>

To conclude, the “Joint Carriers support the Commission strongly *encouraging* carriers to implement permissive 1+10-digit dialing since it is a consumer-friendly measure, but recommend that the Commission not require it, giving carriers the flexibility they may need.”<sup>13</sup>

#### Standardized Call-Intercept Messages

Second, the Joint Carriers find that requiring standardized language for call-intercept messages unnecessary and burdensome. Some carriers may have slight variations to their call-intercept messages within their networks depending on the switch type that serves the area code or geographic area. The Joint Carriers are unsure how this will benefit customers as customers are unlikely to be confused if intercept call messages are not standardized. So long as carriers use some type of call-intercept message, the verbiage should be left up to the carrier.

### **IV. Staff Analysis**

Following a meeting with the telecommunications industry, NANPA published its report saying that the industry recommends the overlay relief recommendation (Decision Option 1). All parties in the docket support this method. Also, all parties support NANPA’s scheduled 13-month implementation schedule (Decision Option 1a).

No parties support a geographic split relief method (Decision Option 2).

The Department made two additional recommendations beyond adoption of the overlay relief method and its 13-month implementation schedule:

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<sup>11</sup> The Joint Telecommunications Carriers reply comments, February 8, 2023, p. 2.

<sup>12</sup> The Joint Telecommunications Carriers reply comments, February 8, 2023, p. 3.

<sup>13</sup> The Joint Telecommunications Carriers reply comments, February 8, 2023, p. 3. Emphasis in comments.



1) *1+10-digit Permissive Dialing*

The Department recommends the Commission require 1+10-digit permissive dialing unless a carrier seeks and obtains a waiver from the Executive Secretary (Decision Option 1b).

The Joint Carriers support the Commission encouraging carriers to use 1+10-digit dialing but do not recommend requiring carriers to do so.

2) *Standardized Language for Call-Intercept Messages*

The Department recommends that the Commission require a one-size-fits-all, standardized language for intercept messages associated with area code relief, saying that it would reduce confusion for consumers (Decision Option 1c). The Department did not provide its reasoning for implementing standard language.

Further, the Department does not provide any recommended language, instead leaving it up to the industry and the Commission's Executive Secretary. Instead, the Department recommends that the industry meet and submit proposed standardized language to the Executive Secretary who would approve it. If a company does not want to use the standardized language, they must submit alternative language, which would need to be approved by the Executive Secretary.

Conversely, the Joint Carriers say that the verbiage should be left up to the company.

Despite its future effect on consumers, this docket has not seen great interest from the public. One public comment was filed in the docket. The consumer did not support a 507 overlay, instead supporting assigning a new area code for all of Mayo Clinic's phone numbers. Staff held a public hearing on December 6, 2022 regarding 507 relief. No consumers made a comment or asked any questions.

## V. Decision Options

1. Approve the All-Services Distributed Overlay for the 507-service area identified as Alternative #1 on page 59 of NANPA's August 23, 2022 filing. (DOC, Joint Carriers)

**[If the Commission chooses decision option 1, decision options 1a, 1b or 1c, and/or 1d may also be chosen.]**

- a. Approve NANPA's suggested 13-month timeline for planning and implementation. (DOC, Joint Carriers)
- b. Require permissive 1+10 digit dialing for the completion of local calls unless a carrier seeks and obtains a waiver from this requirement from the Commission. (DOC)

**[OR]**

- c. Encourage permissive 1+10 digit dialing for the completion of local calls. (Staff interpretation of Joint Carriers' Alternative)
- d. Require the Joint Telecommunications Carriers to file proposed standardized language for call-intercept messages within 30 days of the Commission's Order. Authorize the Executive Secretary to approve the proposed language via notice if no objections are filed within 20 days after the Joint Telecommunications Carriers' filing. All local service providers in the 507 service area will be required to use the approved standardized call-intercept message language unless alternative language is approved by the Executive Secretary. (DOC)

**[OR]**

2. Approve the geographic split of the 507-service area identified as Alternative #2 on page 60 of NANPA's August 23, 2022 filing.

**[If the Commission chooses decision option 2, it should choose either decision options 2a or 2b.]**

- a. Order that Area A will be served by the existing 507 area code and Area B will be served by the newly introduced area code.

**[OR]**

- b. Order that Area B will be served by the existing 507 area code and Area A will be served by the newly introduced area code.

*Staff recommends decision options 1 and 1a.*