



ATIS-0300119

**Thousands-Block (NPA-NXX-X) & Central
Office Code (NPA-NXX) Administration
Guidelines**

Reissued with the closure of Issues 893 and 894.

November 6, 2020

ATIS-0300119

Copyright © 2020 by the Alliance for Telecommunications Industry Solutions, Inc.

All rights reserved.

The Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines dated November 6, 2020, is copyrighted, published and distributed by ATIS on behalf of the Industry Numbering Committee (INC). Except as expressly permitted, no part of this publication may be reproduced or distributed in any form, including electronic media or otherwise, without the prior express written permission of ATIS.

Participants in the INC and other parties are hereby authorized to reproduce this document and distribute it within their own business organizations for business purposes, provided that this notice continues to appear in the reproduced documentation. Resale is prohibited.

For ordering information, please contact:

ATIS

1200 G Street N.W., Suite 500

Washington, DC 20005

(202) 628-6380

inc@atis.org

A complete listing of INC Documents is available on the ATIS Web Site at: <http://www.atis.org/inc/incguides.asp>.



As a leading technology and solutions development organization, the Alliance for Telecommunications Industry Solutions (ATIS) brings together the top global ICT companies to advance the industry's most pressing business priorities. ATIS' nearly 200 member companies are currently working to address the All-IP transition, 5G, network functions virtualization, big data analytics, cloud services, device solutions, emergency services, M2M, cyber security, network evolution, quality of service, billing support, operations, and much more. These priorities follow a fast-track development lifecycle — from design and innovation through standards, specifications, requirements, business use cases, software toolkits, open source solutions, and interoperability testing.

ATIS is accredited by the American National Standards Institute (ANSI). The organization is the North American Organizational Partner for the 3rd Generation Partnership Project (3GPP), a founding Partner of the oneM2M global initiative, a member of and major U.S. contributor to the International Telecommunication Union (ITU), as well as a member of the Inter-American Telecommunication Commission (CITEL). For more information, visit www.atis.org.

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*.

Notice of Disclaimer & Limitation of Liability

The information provided in this document is directed solely to professionals who have the appropriate degree of experience to understand and interpret its contents in accordance with generally accepted engineering or other professional standards and applicable regulations. No recommendation as to products or vendors is made or should be implied.

NO REPRESENTATION OR WARRANTY IS MADE THAT THE INFORMATION IS TECHNICALLY ACCURATE OR SUFFICIENT OR CONFORMS TO ANY STATUTE, GOVERNMENTAL RULE OR REGULATION, AND FURTHER, NO REPRESENTATION OR WARRANTY IS MADE OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS. ATIS SHALL NOT BE LIABLE, BEYOND THE AMOUNT OF ANY SUM RECEIVED IN PAYMENT BY ATIS FOR THIS DOCUMENT, AND IN NO EVENT SHALL ATIS BE LIABLE FOR LOST PROFITS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. ATIS EXPRESSLY ADVISES THAT ANY AND ALL USE OF OR RELIANCE UPON THE INFORMATION PROVIDED IN THIS DOCUMENT IS AT THE RISK OF THE USER.

NOTE - The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights. By publication of this standard, no position is taken with respect to whether use of an invention covered by patent rights will be required, and if any such use is required no position is taken regarding the validity of this claim or any patent rights in connection therewith. Please refer to [http://www.atis.org/legal/patentinfo.asp] to determine if any statement has been filed by a patent holder indicating a willingness to grant a license either without compensation or on reasonable and non-discriminatory terms and conditions to applicants desiring to obtain a license.

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 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, Charter Communications

Trademark Acknowledgements

iconectiv® and Common Language® are registered trademarks and CLCI™, CLLI™, LERG™ Routing Guide and TPM™ Data Source are trademarks and the Intellectual Property of iconectiv, LLC.

Table of Contents

1	BACKGROUND	1
2	PURPOSE & SCOPE	2
2.1	PUBLIC RESOURCES	2
2.2	THOUSANDS-BLOCK NUMBER POOLING	2
2.3	AUDITS	3
2.4	SERVICE PROVIDER RESPONSIBILITIES	3
3	ASSUMPTIONS & CONSTRAINTS	3
3.1	ASSIGNMENT AND USE	3
3.2	ADMINISTRATOR HOLIDAYS	5
4	PRE-ORDERING RESPONSIBILITIES	5
4.1	SYSTEM ACCESS	5
4.2	SPs NOT PARTICIPATING IN THOUSANDS-BLOCK NUMBER POOLING	6
4.3	SPs PARTICIPATING IN THOUSANDS-BLOCK NUMBER POOLING	6
4.4	FCC FORM 502, NORTH AMERICAN NUMBERING PLAN NUMBERING RESOURCE UTILIZATION/FORECAST (NRUF) REPORT	7
4.5	THOUSANDS-BLOCK FORECAST REPORT (APPENDIX 4)	8
4.6	OPERATING COMPANY NUMBER (OCN)	9
4.7	SWITCHING ENTITY/POI COMMON LANGUAGE® LOCATION CODE (CLLI™ CODE)	9
4.8	INITIAL NUMBERING RESOURCE DOCUMENTATION	10
4.9	GROWTH NUMBERING RESOURCE DOCUMENTATION	12
4.10	NUMBERING RESOURCE APPLICANT REQUIREMENTS	15
5	REQUESTING NUMBERING RESOURCES	15
5.1	INITIAL THOUSANDS-BLOCKS (NPA-NXX-X) APPLICATIONS	15
5.2	GROWTH THOUSANDS-BLOCKS (NPA-NXX-X) APPLICATIONS	20
5.3	INITIAL POOLED CENTRAL OFFICE (CO) CODE (NPA-NXX) APPLICATIONS	26
5.4	GROWTH POOLED CENTRAL OFFICE (CO) CODE (NPA-NXX) APPLICATIONS	33
5.5	INITIAL NON-POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX) APPLICATIONS	40
5.6	GROWTH NON-POOLED CENTRAL OFFICE (CO) CODE (NPA-NXX) APPLICATIONS	44
6	RESERVING NUMBERING RESOURCES	48
6.1	RESERVING THOUSANDS-BLOCKS (NPA-NXX-X)	48
6.2	RESERVING POOLED OR NON-POOLED CENTRAL OFFICE (CO) CODE (NPA-NXX)	49
7	ALLOCATION OF NUMBERING RESOURCES	50
7.1	THOUSANDS-BLOCKS (NPA-NXX-X)	50
7.2	POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	57
7.3	NON-POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	60
8	RESPONSIBILITIES & ACTIONS AFTER RECEIVING NUMBERING RESOURCES	64
8.1	THOUSANDS-BLOCKS (NPA-NXX-X)	64
8.2	POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	68
8.3	NON-POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	74
9	MODIFICATIONS TO NUMBERING RESOURCES	78
9.1	THOUSANDS-BLOCKS (NPA-NXX-X)	78
9.2	POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	81
9.3	NON-POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	87
10	MASS MODIFICATIONS	93
10.1	THOUSANDS-BLOCKS (NPA-NXX-X)	93
10.2	POOLED AND NON-POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	94

11	RECLAMATION AND RETURN OF NUMBERING RESOURCES	94
11.1	THOUSANDS-BLOCKS (NPA-NXX-X)	94
11.2	POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	101
11.3	NON-POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	121
12	ABANDONED NUMBERING RESOURCES	133
12.1	THOUSANDS-BLOCKS (NPA-NXX-X)	133
12.2	POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	134
12.3	NON-POOLED CENTRAL OFFICE (CO) CODES (NPA-NXX)	142
13	INTRA-SERVICE PROVIDER (ISP) BLOCK PORTING	149
13.1	REQUESTING A NEW ISP	149
13.2	MODIFYING AND DISCONNECTING AN INTRA-SERVICE PROVIDER (ISP) BLOCK PORTED THOUSANDS-BLOCK (NPA-NXX-X)	151
14	ADMINISTRATOR RESPONSIBILITIES	152
14.1	POOLING ADMINISTRATOR (PA)	152
14.2	NORTH AMERICAN NUMBERING PLAN ADMINISTRATOR (NANPA)	161
15	CENTRAL OFFICE (CO) CODE (NPA-NXX) CONSERVATION AND JEOPARDY PROCEDURES	164
15.1	NRUF REPORT ANALYSIS.....	164
15.2	ONGOING CO CODE ADMINISTRATION CONSERVATION PRACTICES.....	164
15.3	DECLARATION OF JEOPARDY.....	165
15.4	INTERIM JEOPARDY PROCEDURES.....	166
15.5	JEOPARDY MEETING.....	166
15.6	EXTRAORDINARY NPA-SPECIFIC ALTERNATIVES.....	167
16	CENTRAL OFFICE (CO) CODE (NPA-NXX) RELIEF PLANNING RESPONSIBILITIES	168
16.1	NANPA RELIEF PLANNING FUNCTIONS	168
16.2	AFFECTED PARTIES	171
16.3	TEST CO CODES FOR NEW NPAs – SPLITS OR OVERLAYS	171
17	THOUSANDS-BLOCK NUMBER POOLING SUPPLEMENTAL IMPLEMENTATION MEETING (SIM) PROCEDURES	171
17.1	OUTLINE OF SIM MILESTONES (TABLE 1).....	172
17.2	DETAILS OF SIM.....	173
18	RATE CENTER CONSOLIDATIONS/CHANGES	177
18.1	REGULATED RATE CENTER CONSOLIDATIONS/CHANGE.....	177
18.2	DEREGULATED RATE CENTER CONSOLIDATIONS/CHANGE.....	177
19	APPEALS AND SAFETY VALVE PROCESS	178
19.1	APPEALS PROCESS	178
19.2	SAFETY VALVE PROCESS.....	179
20	MAINTENANCE OF THESE GUIDELINES	179
21	GLOSSARY	180
22	NORMATIVE REFERENCES.....	190

Table of Figures

FIGURE 11-1: CO CODE HOLDERS RETURNING A POOLED CO CODE WHERE THERE ARE NO THOUSANDS-BLOCKS ASSIGNED TO OTHER SPs	130
FIGURE 12-1: CO CODE HOLDERS RETURNING A POOLED CO CODE WHERE THERE ARE THOUSANDS-BLOCKS ASSIGNED TO OTHER SPs AND THE CO CODE HOLDER HAS NO WORKING NUMBERS	140

ATIS-0300119

FIGURE 12-2: CO CODE HOLDERS RETURNING A POOLED CO CODE WHERE THERE ARE THOUSANDS-BLOCKS ASSIGNED TO OTHER SPS AND THE CO CODE HOLDER HAS WORKING NUMBERS 147

TBCOCAG Forms and Appendices

Part 1	Central Office Code (NPA-NXX) Application
Part 1A	Thousands-Block (NPA-NXX-X) Application
Part 1B	NPAC Thousands-Block Data
Part 2	Central Office Code Routing and Rating Information (Forms 1, 2, 6, 7, 8, 9)
Part 2A	Thousands-Block Routing and Rating Information
Part 3	Central Office Code Administrator’s Response/Confirmation
Part 3A	Pooling Administrator’s Response/Confirmation
Part 4	Confirmation of Code In Service
Part 4A	Confirmation of Thousands-Block In Service
Part 4 PA	Confirmation of Pooled Code In Service
Part 5	Thousands-Block Reclamation Form
Appendix 1	Central Office Code Months to Exhaust Certification Worksheet – TN Level
Appendix 2	Thousands-Block Months to Exhaust Certification Worksheet - TN Level
Appendix 3	Thousands-Block Months to Exhaust Certification Worksheet - 1000 Block Level
Appendix 4	Thousands-Block Forecast Report
Appendix A	Business Plan/Pre-Planning Checklist for Demonstration of Facilities Readiness for an Initial NXX Code or NXX-X Block
Appendix B	Template for 30-Day State Notification for Interconnected VoIP Providers

Note: Appendix D of the COCAG was sunset with the publication of this document.

ATIS Standard on –

Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines

1 Background

North American Numbering Plan (NANP) resources, including those covered in these guidelines, are collectively managed by the North American Telecommunications industry with oversight by the North American regulatory authorities in areas served by the NANP. The NANP is the basic numbering scheme for the public switched telecommunications networks in the Countries¹ that are participants in the NANP.²

The NANP and the NANP resources are developed in conformance with the International Telecommunication Union Telecommunications Standardization Sector (ITU-T) recommendations including E.164 “The international public telecommunication numbering plan.”³

NANP resources are used to route calls to subscriber terminals and may be included in the call record for the purpose of rating calls.

These guidelines address the assignment of Central Office (CO) Codes (NPA-NXX) [also referred to as CO Codes (NPA-NXX)] and Thousands-Blocks (NPA-NXX-X), including submission of new assignments for inclusion in the iconectiv[®] Business Integrated Routing and Rating Database System (BIRRD) and Line Information Database (LIDB) Access Support System (LASS) so that notification to the industry can take place through BIRRD outputs. Examples of these outputs are the iconectiv Local Exchange Routing Guide (LERG[™]), and the iconectiv TPM[™] Data Source. Implementation of these assignments is beyond the scope of these guidelines.

Throughout these guidelines the term Numbering Resources shall be used when referencing both CO Codes and Thousands-Blocks.

Examples of uses for Numbering Resources for which these guidelines apply include plain old telephone service (POTS), Centrex, Direct Inward Dialing (DID), Commercial Mobile Radio Service (CMRS), Interconnected Voice over IP (VoIP) services, data lines, facsimile, coin phones, and customer owned pay phones. Numbering Resources are Assigned to Service Providers (SP) for use at a Switching Entity/Point of Interconnection (POI) they own or control. While the ultimate delivery of any call to a Numbering Resource need not be geographically identified, by necessity initial routing is geographically defined. Therefore, for assignment and routing purposes, the Numbering Resource is associated with a specific geographic location within a Numbering Plan Area (NPA), from which it is Assigned. For some companies this is also used for billing purposes.

These guidelines were developed assuming pre-porting with Efficient Data Representation (EDR) as the preferred method of implementation.⁴

¹ The term Country(ies) is used herein to mean a sovereign state or its geopolitical subdivision (e.g., Territory, Commonwealth or Possession). A listing of sovereign states can be found at the United Nations and/or the International Telecommunications Union websites.

² See North American Numbering Plan (NANP) in the Glossary for a current list of participants.

³ This document is available at: < <http://www.itu.int/rec/T-REC-E.164/en> >.

⁴ Refer to North American Numbering Council (NANC) Meeting Record, August 1998.

While these guidelines were developed at the direction of the Federal Communications Commission (FCC),⁵ they do not supersede controlling appropriate NANP area governmental or regulatory principles, guidelines, and requirements. However, the FCC has implemented a number of orders and rules referenced by footnote to the appropriate order. Should the rules change, the associated text in the guidelines and references would change accordingly. The FCC orders and rules incorporated in these guidelines are included in Section 22.

2 Purpose & Scope

This document specifies guidelines for the administration and assignment of CO Codes (NPA-NXX), and Thousands-Blocks (NPA-NXX-Xs) to Local Number Portability (LNP)-capable SPs⁶ within geographic numbering plan areas (NPAs). This does not preclude a future effort to address non-geographic NPA in the same guidelines.⁷ Throughout these guidelines the term Numbering Resources shall be used when referencing both CO Codes and Thousands-Blocks.

These guidelines do not address the issue of who shall fulfill the role of the North American Numbering Plan Administrator (NANPA) or the Pooling Administrator (PA). Throughout these guidelines, the terms NANPA and CO Code Administrator are used interchangeably, and the term Numbering Resource Administrators is used when referring to both NANPA and the PA. The guidelines described herein were developed by the industry without any assumption on who should be the NANPA(s) or PA(s).⁸

2.1 Public Resources

The NANP resources are considered a public resource and are not owned by the Assignees or the Numbering Resource Administrators. Administrative assignment of the CO Code and Thousands-Block public resource to a CO Code Holder or Thousands-Block Holder does not imply ownership of the resource to the CO Code Holder or Thousands-Block Holder to which it is Assigned. Consequently, the Numbering Resources cannot be sold, brokered, bartered, or leased by the Assignee for a fee or other consideration.

If a Numbering Resource is sold, brokered, bartered, or leased for a fee, the resource is subject to Reclamation.⁹ Unused numbers may also be subject to Reclamation for Reassignment to other SPs.¹⁰

2.2 Thousands-Block Number Pooling

Thousands-Block Number Pooling references in these administration guidelines apply only to the assignment of Thousands-Blocks to Thousands-Block Applicants providing service within specific Rate Centers:

- a) where SP Location Routing Number (LRN) LNP has been implemented;
- b) where Thousands-Block Number Pooling has been mandated by the appropriate regulatory body;

⁵ This effort has been undertaken at the direction of the Federal Communications Commission (FCC), in a letter to the North American Numbering Plan Administrator (NANPA) dated June 21, 1991, in an attempt to develop procedures that can be applied uniformly while using a finite Numbering Resource in the most efficient and effective manner possible and subsequently changed per the FCC's Numbering Resource Optimization orders under Dockets 99-200, 96-98 and 95-116.

⁶ In Rate Centers where Thousands-Block Number Pooling has been ordered or implemented; the Thousands-Block Number Pooling sections of these guidelines do not apply where Thousands-Block Number Pooling has not been ordered or implemented. See FCC 03-126 ¶14.

⁷ Separate procedures apply to the assignment of Central Office (CO) Codes (NPA-NXX) within currently Assigned Service Access Codes (SACs), and others will be developed, as appropriate, as new SACs are Assigned by the North American Numbering Plan Administrator (NANPA). For example, CO Code assignment guidelines for the 900 SACs are available. Separate guidelines also will be prepared to address the assignment of Numbering Resources reserved for non-geographic applications.

⁸ A list of the current Code Administrators is available at <http://www.nanpa.com>. A list of current Pooling Administrators is available at www.nationalpooling.com.

⁹ Supported by the North American Numbering Council (NANC) in letter dated 7/30/97 from the NANC Chairman to the Industry Numbering Committee (INC) Moderator.

¹⁰ FCC 00-104 ¶5. See also 47 CFR § 52.15 (i) (1).