

Quentin Sager Consulting, Inc.

# [NALENND™ PLATINUM EDITION]

North American Local Exchange NPA NXX Database reference manual

This document contains the data set and file specifications for the NALENND™ Platinum Edition database. These specifications are subject to change without notice. The data it describes is furnished under a license agreement, and may be used or copied only in accordance with the terms of the license agreement.

NALENND™ Platinum Edition Reference Manual  
Revised: August 1, 2019

Published by:

**Quentin Sager Consulting, Inc.**  
**1589 South Wallace Point**  
**Crystal River, FL 34429**

Copyright © 2019 Quentin Sager Consulting, Inc.  
All rights reserved.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of Quentin Sager Consulting, Inc.

### **Disclaimer and Limitation of Liability**

The information provided in this document is directed solely to users who have the appropriate degree of experience to understand and interpret its contents in accordance with generally accepted engineering, industry, or other professional standards and applicable regulations.

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. QUENTIN SAGER CONSULTING SHALL NOT BE LIABLE, BEYOND THE AMOUNT OF ANY SUM RECEIVED IN PAYMENT BY QUENTIN SAGER CONSULTING FOR THIS DOCUMENT, WITH RESPECT TO ANY CLAIM, AND IN NO EVENT SHALL QUENTIN SAGER CONSULTING BE LIABLE FOR LOST PROFITS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. QUENTIN SAGER CONSULTING EXPRESSLY ADVISES THAT ANY AND ALL USE OF OR RELIANCE UPON THE INFORMATION PROVIDED IN THIS DOCUMENT IS AT THE RISK OF THE USER.

## FILE NAMES AND DESCRIPTIONS

Each table (*file*) in the NALENND™ database is delivered in flat, delimited text file format (commonly referred to as comma-separated-value or CSV format). The NALENND™ database is easily imported to and accessed through most contemporary database engines including (but not limited to) MySQL, PostgreSQL, SQLite, Oracle, IBM DB2, Microsoft SQL Server, Microsoft Access, or similar tool.

The data can be imported as Unicode UTF-8 (no byte order mark) text. For each file in the NALENND™ database; the first row contains field names (column headers), fields are terminated by a single comma “,” character, fields are optionally enclosed using a double quote character, and lines (rows) are terminated with a two character carriage return line feed (CR + LF) sequence.

File	Primary data contents
<b>phoneplatinum.csv</b>	Active NPA NXX (central office codes) and block assignments within the NPA NXX  March 27, 2013 – Olson time zone id and UTC time zone fields added.
<b>lata.csv</b>	Local Access and Transport Area (LATA) codes and names
<b>ocn.csv</b>	Carrier name, type, address, and Operating Company Number (OCN)
<b>county.csv</b>	United States FIPS county codes and names; Canadian census division codes and names
<b>cbsa.csv</b>	Current metropolitan statistical areas and their codes; United States – Core Based Statistical Area (CBSA) codes; Canada – Census Metropolitan Area (CMA) or Census Agglomeration (CA) codes
<b>msa.csv</b>	United States MSA codes based on definitions used for presenting metropolitan area statistics in Census 2000 publications. These historical 4-digit codes were superseded in June 2003.

## RECORD LAYOUTS AND FIELD DESCRIPTIONS

**FILE: phoneplatinum.csv**

Field	Description
<b>NPA</b>	Numbering Plan Area (NPA) Code. An NPA, also known as a telephone <i>area code</i> , is the first three digits of a 10-digit North American Numbering Plan (NANP) telephone number in the form NXX-NXX-XXXX, where N represents any one of the numbers 2 through 9 and X represents any one of the numbers 0 through 9. Valid numeric range for NPA codes is 200 through 999.
<b>NXX</b>	Central Office Code (COC). The COC, commonly called the telephone exchange or prefix, is the second three digits (NXX) of a 10-digit NANP telephone number in the form NXX-NXX-XXXX, where N represents any one of the numbers 2 through 9 and X represents any one of the numbers 0 through 9. Valid numeric range for NXX codes is 200 through 999.
<b>BLOCK_ID</b>	<p>Block identifier implies, represents, or identifies either the entire group of 10,000 numbers or a specific group of 1,000 numbers within the NPA NXX.</p> <p>An “<b>A</b>” record will be present for NPA NXX records that are “assigned” to the Code Holder per the Central Office Code Assignment Guidelines. For non-pooled numbers it identifies a 10,000-block level record and implies line assignments 0000 through 9999. For pooled numbers the “A” record is present for default routing purposes and identifies the <i>LERG Assignee</i>, numeric blocks must be referenced for actual carrier assignments.</p> <p>A numeric block (digits “<b>0</b>” through “<b>9</b>”) refers to those assignments made per Thousands Block Pooling Administrative Guidelines, it identifies a 1,000-block level record and refers to line assignments x000 through x999 where x=the block identifier.</p>
<b>TBP_IND</b>	<p>Thousands Block Pooling Indicator.</p> <ul style="list-style-type: none"> <li>• <b>Y</b> – The NPA NXX is part of a pool within the given NPA where numbers are assigned 1,000 lines at a time by the Pooling Administrator. The OCN specified in the “A” record identifies the LERG Assignee for administrative purposes.</li> <li>• <b>N</b> – The NPA NXX is not pooled and is assigned at the 10,000-block level. The OCN field identifies the Central Office Code Holder.</li> </ul> <p><i>Currently applies to United States exchanges only.</i></p>
<b>LATA</b>	Local Access and Transport Area (LATA), or LATA-like code of the Rate Center. This LATA may differ from the geographical LATA of the switch. LATA codes are 3-digits however some Florida LATA codes may indicate 5-digits, for these codes, the last two digits are the LATA sub-zone which represents Equal Access Exchange Areas (EAEAs).
<b>LTYPE</b>	<p>Line type or telephone service type of the NPA NXX.</p> <ul style="list-style-type: none"> <li>• <b>S</b> – Land line, non-wireless service including POTS, Broadband, etc.</li> <li>• <b>C</b> – Wireless type service including PCS, Cellular, GSM, etc.</li> <li>• <b>P</b> – Paging and other Messaging services</li> <li>• <b>M</b> – Mixed wireless and land line service</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>V</b> – VoIP</li> </ul> <p>For pooled exchanges, the line type specified in the “<b>A</b>” block record applies to the LERG Assignee. Individual 1,000 block records must be referenced to determine the service type provided by individual carriers within the same exchange.</p>
<b>CONTAM</b>	<p>Thousands Block Contaminated. A “<b>Y/N</b>” flag specifying whether the thousands-block allocation is contaminated. A contaminated block is an assigned block that contains at least one line number that cannot be assigned.</p> <p><i>Currently applies to United States exchanges only.</i></p>
<b>STATE</b>	<p>2-character United States Postal Service/Canada Post postal abbreviation for the state, province, or territory of the Rate Center location. For Caribbean Rate Centers, this field is populated with the 2-character Common Language® country code.</p>
<b>COUNTRY</b>	<p>2-character ISO 3166 Country Code (ISO 3166-1:2006 2006) of the Rate Center location. These country codes may differ from the similar FIPS country codes (Federal Information Processing Standards Publication 104-1 1986) used in other telecommunications industry specific databases.</p>
<b>WC</b>	<p>Name of the <i>Serving Wire Center</i>, also known as <i>Central Office</i>, identified by the geographical location encoded within the switch’s Common Language Location Identifier® (CLLI) code (Standards Committee T1 - Telecommunications 1999).</p> <p>The Wire Center name will always include the city name and possibly the hyphen delimited building name.</p>
<b>SWITCH</b>	<p>Eleven character Common Language Location Identifier® (CLLI) code of the switch or Point of Interface (POI) serving the NPA NXX. For NXXs in the Caribbean and Bermuda NPAs, the SWITCH field may be populated with SWCHxxUNKNO, where xx identifies one of the countries or territories in the Caribbean or Bermuda.</p>
<b>RCSTATUS</b>	<p>Rate Center Number Pooling Status. The pooling status determines whether new assignments are made at the 10,000-block level through the Central Office Code Administrator or at the 1,000-block level through the Pooling Administrator.</p> <ul style="list-style-type: none"> <li>• <b>X</b> – This Rate Center is not in a top 100 MSA, no service provider is currently participating in pooling and the Rate Center is not included in the Pooling Administration System.</li> <li>• <b>O</b> – This Rate Center is not in a top 100 MSA and any service provider with numbering resources in this Rate Center may elect to pool at its option.</li> <li>• <b>M</b> – Pooling was implemented in this Rate Center pursuant to a state commission order and service providers with numbering resources in this Rate Center that have not been granted a specific exemption must pool in this Rate Center.</li> <li>• <b>M*</b> - the Rate Center’s participation in number pooling is mandatory. Same as “M” code but the particular Rate Center is serviced by a single carrier.</li> </ul> <p><i>Currently applies to United States exchanges only.</i></p>
<b>RCTYPE</b>	<p>Rate Center Type. Single character field used to identify Rate Centers requiring special identification.</p> <ul style="list-style-type: none"> <li>• <b>Blank</b> – Unrestricted Rate Center.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>S</b> – Suburban Zone; Suburban Zones apply to large metropolitan areas and may include only the area around a city (e.g., Pittsburgh Suburban Zones) or the city and its surrounding area (e.g., Wheeling Suburban Zones).</li> <li>• <b>Z</b> – Zoned city; Unit established to further define large exchange areas usually encompassing a city (e.g., New York City).</li> </ul>
<b>RC</b>	Full name of the Rate Center (or service) where the NPA NXX is assigned.
<b>TZ</b>	<p>Two-character alpha specifying the standard time zone recognized at the Rate Center, Rate Exchange Area, or locality.</p> <ul style="list-style-type: none"> <li>• <b>NT</b> - Newfoundland (UTC -3.5 hours)</li> <li>• <b>AT</b> - Atlantic (UTC -4 hours)</li> <li>• <b>ET</b> - Eastern (UTC -5 hours)</li> <li>• <b>CT</b> - Central (UTC -6 hours)</li> <li>• <b>MT</b> - Mountain (UTC -7 hours)</li> <li>• <b>PT</b> - Pacific (UTC -8 hours)</li> <li>• <b>AK</b> - Alaska (UTC -9 hours)</li> <li>• <b>HT</b> - Hawaii-Aleutian (UTC -10 hours)</li> <li>• <b>AS</b> - American Samoa (UTC -11 hours)</li> <li>• <b>CH</b> - Chamorro (UTC +10 hours, Guam and Northern Mariana Islands)</li> <li>• <b>XX</b> – time zone not applicable. This applies to certain NPA NXX combinations where there is no specific geographic location associated with the exchange.</li> </ul>
<b>DST</b>	<p>Daylight Savings Time recognized flag.</p> <ul style="list-style-type: none"> <li>• <b>Y</b> – Daylight savings time is recognized.</li> <li>• <b>N</b> – Daylight savings time is not recognized.</li> <li>• <b>X</b> – Daylight savings time not applicable. This applies to certain NPA NXX combinations where there is no specific geographic location associated with the exchange.</li> </ul>
<b>ZIP</b>	<p>United States Zip code or Canada Post FSA code found in use within the Rate Center, Rate Exchange Area, or locality based on geographic relationship.</p> <ul style="list-style-type: none"> <li>• <b>United States</b> – contains the first 5-digit ZIP code found for the exchange locality within the Rate Center.</li> <li>• <b>Canada</b> – contains the first postal code Forward Sortation Area code for the exchange within the Rate Center.</li> </ul>
<b>ZIP2</b>	Second United States ZIP code or Canadian postal code Forward Sortation Area code for the exchange locality.
<b>ZIP3</b>	Third United States ZIP code or Canadian postal code Forward Sortation Area code for the exchange locality.
<b>ZIP4</b>	Fourth United States ZIP code or Canadian postal code Forward Sortation Area code for the exchange locality.
<b>FIPS</b>	<p>County, county equivalent or census division code.</p> <ul style="list-style-type: none"> <li>• <b>United States</b> – 5-digit Federal Information Processing System (FIPS) county code.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Canada</b> – 4-digit Statistics Canada census division code</li> </ul>
<b>FIPS2</b>	Second county, county equivalent or similar code.
<b>FIPS3</b>	Third county, county equivalent or similar code.
<b>CBSA</b>	<p>Metropolitan statistical area (code) the Rate Center, Rate Exchange Area, or locality is located in.</p> <ul style="list-style-type: none"> <li>• <b>United States</b> – 5-digit Office of Management and Budget to the Core Based Statistical Area (CBSA) code</li> <li>• <b>Canada</b> – 3-digit Statistics Canada Census Metropolitan Area (CMA) or Census Agglomeration (CA) code</li> </ul>
<b>CBSA2</b>	Second metropolitan statistical area code.
<b>MSA</b>	<p>4-digit Metropolitan Statistical Area (MSA) code the Rate Center is located in if any. This field is maintained for historical cross-reference. MSA codes have been replaced with the 5-digit CBSA code.</p> <p><i>United States exchanges only.</i></p>
<b>PMSA</b>	<p>4-digit Primary Metropolitan Statistical Area (PMSA) code the Rate Center is located in if any. If a PMSA code is present then the MSA code is recognized as a Consolidated Metropolitan Statistical Area (CMSA) code. This field is maintained for historical cross-reference. MSA codes have been replaced with the 5-digit CBSA code.</p> <p><i>United States exchanges only.</i></p>
<b>LATITUDE</b>	Latitude in decimal degrees locating the general NPA NXX geographic based service area.
<b>LONGITUDE</b>	Longitude in decimal degrees locating the general NPA NXX geographic based service area.
<b>OCN_CATEGORY</b>	<p>Single character field identifying the general classification of the carrier identified by the current OCN.</p> <ul style="list-style-type: none"> <li>• <b>B</b> - Regional Bell Operating Company (RBOC)</li> <li>• <b>L</b> - Incumbent Local Exchange Carrier (ILEC), Independent Telephone Company (ICO)</li> <li>• <b>C</b> - Competitive Local Exchange Carrier (CLEC), Competitive Access Provider (CAP), Unbundled Local Exchange Carrier (ULEC)</li> <li>• <b>W</b> - Personal Communications Service (PCS), Wireless Provider (Non-PCS Cellular, Paging, Radio), Wireless Reseller, Personal Communication Services Reseller</li> <li>• <b>P</b> - Same as non-PCS wireless service providers but used to distinguish those carriers providing primarily paging and messaging services from other non-PCS wireless providers.</li> <li>• <b>I</b> - Interexchange carrier. Generally a carrier providing long distance and/or local toll services.</li> <li>• <b>T</b> – Toll reseller</li> <li>• <b>G</b> – General service carrier</li> <li>• <b>V</b> – VoIP service provider</li> </ul>

<b>OCN</b>	4-character Operating Company Number (OCN) also known as a NECA Company Code, identifying the NPA NXX code-holder, LERG Assignee, or block-holder.
<b>DERIVED_FROM_NPA</b>	<p>Indicates the previous NPA that existed in the area covered by a given NPA. In cases of overlays, some or all of the previous NPAs may still cover the area. The OVERLAY field should be referenced to determine how to interpret this field.</p> <ul style="list-style-type: none"> <li>• Splits –this field specifies the original NPA that this NPA was created from via a geographic split.</li> <li>• Overlays –this field specifies the original NPA that this NPA now overlays.</li> <li>• If this field is empty or specifies the current NPA then the current NPA is the original or parent NPA.</li> </ul>
<b>NEWNPA</b>	<p>Specifies the new area code to be used with the NXX or new area code(s) created in the same coverage area as the current area code. The OVERLAY field should be referenced to determine how to interpret this field.</p> <ul style="list-style-type: none"> <li>• Splits – if not empty or the value specified is different than the current NPA then this field specifies the new area code that should be used with the current NXX.</li> <li>• Overlay – if present, specifies one or more semi-colon separated area codes that occupy the same coverage area as the current NPA. The area code for the current NXX remains the same.</li> </ul>
<b>OVERLAY</b>	<p>Single character field to determine how the DERIVED_FROM_NPA and NEWNPA fields should be interpreted.</p> <ul style="list-style-type: none"> <li>• <b>O</b> - the NPA is overlaid by one or more NPAs or this NPA overlays one or more NPAs. The DERIVED_FROM_NPA field may be used to determine the overlay direction.</li> <li>• <b>P</b> - the NPA is involved in a DERIVED_FROM_NPA split and the exchange is being moved from the NEWNPA parent. If the NEWNPA field is empty, the exchange is remaining in the current NPA and is protected from re-assignment during the split.</li> <li>• <b>S</b> - the NPA is being split and the exchange is moving from the current NPA to the NEWNPA</li> <li>• Empty – if DERIVED_FROM_NPA is not empty then NPA was created from a geographic split of DERIVED_FROM_NPA.</li> </ul>
<b>OLSON</b>	<p>Internet Assigned Numbers Authority (IANA) time zone database time zone identifier or name for the Rate Center geographic location.</p> <p>The IANA time zone database is also referred to as the <i>tz database</i>, the <i>zoneinfo database</i>, and the <i>Olson database</i>.</p>
<b>UTC</b>	Coordinated Universal Time (UTC) offset for the Rate Center geographic location. Format is +\-HH:MM.



**FILE: ocn.csv**

Field	Description
<b>OCN</b>	4-character state or regional Operating Company Number (OCN) also known as a NECA Company Code.
<b>OVERALL_OCN</b>	4-character overall Operating Company Number (OCN).
<b>TYPE</b>	Type of carrier or service provider <ul style="list-style-type: none"> <li>• ILEC – Incumbent Local Exchange Carrier, Independent Telephone Company (ICO)</li> <li>• ULEC – Unbundled Local Exchange Carrier</li> <li>• RBOC – Regional Bell Operating Company</li> <li>• CLEC - Competitive Local Exchange Carrier</li> <li>• CAP - Competitive Access Provider</li> <li>• IXC – Inter-exchange Carrier</li> <li>• WRSL – Wireless Reseller</li> <li>• IPES – Internet Protocol Enabled Services</li> <li>• ETHX – Ethernet Exchange</li> <li>• INTL – International Telecommunications Service Provider</li> <li>• LRSL – Local Reseller</li> <li>• WIRELESS – Wireless</li> <li>• PCS – Personal Communications Service</li> <li>• PCSR – Personal Communications Service Reseller</li> <li>• PAGING – Paging and Messaging</li> </ul>
<b>NECA</b>	Specifies whether the particular OCN is a National Exchange Carrier Association (NECA) member.
<b>COMPANY</b>	The legal or generally formal name of the service provider.
<b>DBA</b>	The commonly recognized business name of the service provider.
<b>HOLDING</b>	The service provider holding company if any.

**FILE: county.csv**

Field	Description
<b>CountyCode</b>	County, county equivalent, or census division code <ul style="list-style-type: none"> <li>• <b>United States</b> – 5-digit Federal Information Processing System (FIPS) County code.</li> <li>• <b>Canada</b> – 4-digit Statistics Canada census division code</li> </ul>
<b>Country</b>	Two-character ISO 3166-1 Country Code
<b>State</b>	Two character state, province, or territory abbreviation
<b>Name</b>	Name of county or county equivalent
<b>Type</b>	Organizational recognition of the county
<b>LandArea</b>	Land area in square miles
<b>Population</b>	County, county equivalent population.

- **United States** - U.S. Census Bureau 2018 population estimate.
- **Canada** - Statistics Canada reported 2016 population

**FILE: cbsa.csv**

Field	Description
<b>CBSA</b>	Metropolitan statistical area code <ul style="list-style-type: none"> <li>• <b>United States</b> – 5-digit Office of Management and Budget to the Core Based Statistical Area (CBSA) code</li> <li>• <b>Canada</b> – 3-digit Statistics Canada Census Metropolitan Area (CMA) or Census Agglomeration (CA) code</li> </ul>
<b>CSA</b>	Three-digit Combined Statistical Area code if the CBSA is part of a larger statistical area.
<b>AREA_NAME</b>	Area name
<b>STATE</b>	State or province abbreviation
<b>AREA_TYPE</b>	Recognized area type

**FILE: msa.csv**

Field	Description
<b>MSA</b>	4-digit code assigned by the Office of Management and Budget to the MSA or PMSA code.
<b>TYPE</b>	Identifies whether the code is an MSA (Metropolitan Statistical Area), PMSA (Primary Metropolitan Statistical Area), or CMSA (Consolidated Metropolitan Statistical Area).
<b>NAME</b>	Official name of the MSA, PMSA or CMSA.
<b>CMSA</b>	2-digit code to identify the CMSA.
<b>POPULATION</b>	Estimated year 2000 population

**FILE: lata.csv**

Field	Description
<b>LATA</b>	3 or 5 digit Local Access and Transport Area (LATA) code. Technically LATA codes are 3-digits, some Florida LATA codes may indicate 5-digits, for these codes the last two digits are the LATA sub-zone which represents Equal Access Exchange Areas (EAEAs).
<b>STATE</b>	Two character state, province, or territory abbreviation for the LATA location.
<b>COUNTRY</b>	Two character ISO 3166 Country Code for LATA location.
<b>LOCATION</b>	LATA name

## GLOSSARY

### **Basic Trading Area (BTA)**

*United States Basic Trading Areas* are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39, with the following additions: American Samoa (492), Guam (490), Northern Mariana Islands (493), San Juan, Puerto Rico (488), Mayagüez/Aguadilla-Ponce, Puerto Rico (489), and the United States Virgin Islands (491).

### **Central Office**

Also referred to as a *Wire Center* or *End Office*, a *Central Office* is the building where end user lines are joined to switching equipment that connects other end users to each other, both locally and via long distance carriers. The central office contains the associated inside plant network elements required to perform this function, such as distribution frames, interoffice facility termination points, and so on.

### **Local Access and Transport Area (LATA)**

A *Local Access and Transport Area* defines the area within which those local Service Providers directly addressed by the 1984 Modified Final Judgment (MFJ) (i.e. AT&T Divestiture) are permitted to carry traffic. Cross-LATA traffic, except in isolated wavered cases, is handled by interexchange carriers. Although LATA restrictions do not apply to companies not addressed by the MFJ, due to the various interconnection needs among carriers, the influence of LATA restrictions impacts all carriers to a degree.

### **Major Trading Area (MTA)**

*United States Major Trading Areas* are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39 and are used by the U.S. Federal government for determining service areas for some wireless Service Providers.

### **North American Numbering Plan (NANP)**

The *NANP* is the basic numbering scheme for the telecommunications networks in the following 19 countries in ITU Country Code 1: Anguilla, Antigua & Barbuda, Bahamas, Barbados, Bermuda, British Virgin Islands, Canada, Cayman Islands, Dominica, Dominican Republic, Grenada, Jamaica, Montserrat, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago, Turks & Caicos Islands, and the United States of America (including Puerto Rico, the U.S. Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa).

### **National Exchange Carrier Association (NECA)**

Formed in 1983 by the Federal Communications Commission (FCC), NECA is a not-for-profit corporation whose members are local telephone companies. NECA provides Company Codes, used to identify telecommunications carriers and service providers; and helps administer the FCC access charge plan and other federal and state telecommunications programs.

### **Numbering Plan Area (NPA)**

*Numbering Plan Area*, also called *Area Code*. An NPA is the 3-digit code that occupies the A, B, and C positions in the 10-digit NANP format that applies throughout the NANP serving area. 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.

### **Rate Center**

A *Rate Center* is technically the approximate midpoint of a geographical area called a *Rate Exchange Area*, although the term Rate Center has also been used synonymously with the geographic area itself. The Rate Center point is used as basis to determine mileage between Rate Centers. Rate Exchange Area and Rate Center information, as well as other aspects (e.g. V&H) are addressed and defined in local exchange tariffs filed with each state commission by Service Providers operating in each state.

**Thousands Block 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. Number Pooling has been established in accordance with the FCC Report and Order No. 00-104 and the INC Thousands Block Pooling Administration Guidelines (INC 99-0127-023).

**Wire Center**

*Wire Center* is often used interchangeably with the terms *Central Office* and *switch*. Technically, the wire center is the location where the local exchange carrier terminates subscriber local loops, along with the testing facilities necessary to maintain them. A wire center can be a building or space within a building that serves as an aggregation point on a local exchange carrier's network, where transmission facilities and circuits are connected or switched. "Wire Center" can also denote a building in which one or more central office, used for the provision of exchange services and access services, is located.

**V&H Coordinates**

Vertical and Horizontal (V&H) coordinates have been used in telephony since the late 1950's as a means to determine "airline" distance between two points using a simple "distance" formula. The projection algorithm uses latitude and longitude as well as various other factors in deriving the coordinate values. These coordinates are used to identify geographic locations and calculate relative distances between network elements (e.g. switch locations), and between Rate Centers.

## SQL SCRIPTS AND SCHEMAS

### MySQL

```
CREATE DATABASE if not exists `nalennd_platinum`;
USE `nalennd_platinum`;
```

```
DROP TABLE IF EXISTS `npanxx`;
CREATE TABLE `npanxx` (
  `NPA` char(3) NOT NULL,
  `NXX` char(3) NOT NULL,
  `BLOCK_ID` char(1) NOT NULL,
  `TBP_IND` char(1) DEFAULT NULL,
  `LATA` char(5) DEFAULT NULL,
  `LTYPE` char(1) DEFAULT NULL,
  `CONTAM` char(1) DEFAULT NULL,
  `STATE` char(2) DEFAULT NULL,
  `COUNTRY` char(2) DEFAULT NULL,
  `WC` varchar(128) DEFAULT NULL,
  `SWITCH` char(11) DEFAULT NULL,
  `RCSTATUS` char(2) DEFAULT NULL,
  `RCTYPE` char(1) DEFAULT NULL,
  `RC` varchar(128) DEFAULT NULL,
  `TZ` char(2) DEFAULT NULL,
  `DST` char(1) DEFAULT NULL,
  `ZIP` varchar(7) DEFAULT NULL,
  `ZIP2` varchar(7) DEFAULT NULL,
  `ZIP3` varchar(7) DEFAULT NULL,
  `ZIP4` varchar(7) DEFAULT NULL,
  `FIPS` char(5) DEFAULT NULL,
  `FIPS2` char(5) DEFAULT NULL,
  `FIPS3` char(5) DEFAULT NULL,
  `CBSA` char(5) DEFAULT NULL,
  `CBSA2` char(5) DEFAULT NULL,
  `MSA` char(4) DEFAULT NULL,
  `PMSA` char(4) DEFAULT NULL,
  `LATITUDE` double NOT NULL DEFAULT '0',
  `LONGITUDE` double NOT NULL DEFAULT '0',
  `OCN_CATEGORY` char(1) DEFAULT NULL,
  `OCN` char(4) DEFAULT NULL,
  `DERIVED_FROM_NPA` char(3) DEFAULT NULL,
  `NEWNPA` varchar(35) DEFAULT NULL,
  `OVERLAY` char(1) DEFAULT NULL,
  `OLSON` varchar(128) DEFAULT NULL,
  `UTC` char(6) DEFAULT NULL,
  PRIMARY KEY (`NPA`, `NXX`, `BLOCK_ID`),
) ENGINE=MyISAM DEFAULT CHARSET=utf8;
```

```
DROP TABLE IF EXISTS `msa`;
CREATE TABLE `msa` (
  `MSA` CHAR(4) NOT NULL,
  `TYPE` VARCHAR(8) DEFAULT NULL,
  `NAME` VARCHAR(128) DEFAULT NULL,
  `CMSA` CHAR(2) DEFAULT NULL,
  `POPULATION` INT DEFAULT NULL,
  PRIMARY KEY (`MSA`)
) ENGINE=MyISAM DEFAULT CHARSET=utf8;
```

```
DROP TABLE IF EXISTS `lata`;
CREATE TABLE `lata` (
  `LATA` CHAR(5) NOT NULL,
  `STATE` CHAR(2) DEFAULT NULL,
  `COUNTRY` CHAR(2) DEFAULT NULL,
  `LOCATION` VARCHAR(64) DEFAULT NULL,
  PRIMARY KEY (`LATA`)
) ENGINE=MyISAM DEFAULT CHARSET=utf8;
```

```
DROP TABLE IF EXISTS `county`;
CREATE TABLE `county` (
  `CountyCode` CHAR(5) NOT NULL,
  `Country` CHAR(2) DEFAULT NULL,
  `State` CHAR(2) DEFAULT NULL,
  `Name` VARCHAR(128) DEFAULT NULL,
  `Type` VARCHAR(80) DEFAULT NULL,
  `LandArea` INT(11) DEFAULT NULL,
  `Population` INT(11) DEFAULT NULL,
  PRIMARY KEY (`CountyCode`)
) ENGINE=MyISAM DEFAULT CHARSET=utf8;

DROP TABLE IF EXISTS `cbsa`;
CREATE TABLE `cbsa` (
  `CBSA` CHAR(5) NOT NULL,
  `CSA` CHAR(3) DEFAULT NULL,
  `AREA_NAME` VARCHAR(128) DEFAULT NULL,
  `STATE` VARCHAR(20) DEFAULT NULL,
  `AREA_TYPE` VARCHAR(128) DEFAULT NULL,
  PRIMARY KEY (`CBSA`)
) ENGINE=MyISAM DEFAULT CHARSET=utf8;

DROP TABLE IF EXISTS `ocn`;
CREATE TABLE `ocn` (
  `OCN` `char` (4) NOT NULL,
  `OVERALL_OCN` `char` (4) default NULL,
  `TYPE` `varchar` (8) default NULL,
  `NECA` `char` (1) default NULL,
  `COMPANY` `varchar` (128) default NULL,
  `DBA` `varchar` (128) default NULL,
  `HOLDING` `varchar` (128) default NULL,
  `CommonName` VARCHAR(128) DEFAULT NULL,
  PRIMARY KEY (`OCN`)
) ENGINE=MyISAM DEFAULT CHARSET=utf8;
```

## Microsoft SQL Server

```

CREATE DATABASE [nalennd] ON PRIMARY
GO
USE [nalennd]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[npanxx] (
    [NPA] [char](3) NOT NULL,
    [NXX] [char](3) NOT NULL,
    [BLOCK_ID] [char](1) NOT NULL,
    [TBP_IND] [char](1) NULL,
    [LATA] [char](5) NULL,
    [LTYPE] [char](1) NULL,
    [CONTAM] [char](1) NULL,
    [STATE] [char](2) NULL,
    [COUNTRY] [char](2) NULL,
    [WC] [varchar](128) NULL,
    [SWITCH] [char](11) NULL,
    [RCSTATUS] [char](2) NULL,
    [RCTYPE] [char](1) NULL,
    [RC] [varchar](128) NULL,
    [TZ] [char](2) NULL,
    [DST] [char](1) NULL,
    [ZIP] [varchar](7) NULL,
    [ZIP2] [varchar](7) NULL,
    [ZIP3] [varchar](7) NULL,
    [ZIP4] [varchar](7) NULL,
    [FIPS] [char](5) NULL,
    [FIPS2] [char](5) NULL,
    [FIPS3] [char](5) NULL,
    [CBSA] [char](5) NULL,
    [CBSA2] [char](5) NULL,
    [MSA] [char](4) NULL,
    [PMSA] [char](4) NULL,
    [LATITUDE] [float] NULL CONSTRAINT [DF_npanxx_LATITUDE] DEFAULT ((0)),
    [LONGITUDE] [float] NULL CONSTRAINT [DF_npanxx_LONGITUDE] DEFAULT ((0)),
    [OCN_CATEGORY] [char](1) NULL,
    [OCN] [char](4) NULL,
    [DERIVED_FROM_NPA] [char](3) NULL,
    [NEWNPA] [varchar](35) NULL,
    [OVERLAY] [char](1) NULL,
    [OLSON] [varchar](128) NULL,
    [UTC] [char](6) NULL,
CONSTRAINT [PK_npanxx] PRIMARY KEY CLUSTERED
(
    [NPA] ASC,
    [NXX] ASC,
    [BLOCK_ID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[lata] (
    [LATA] [char](5) NOT NULL,
    [STATE] [char](2) NULL,
    [COUNTRY] [char](2) NULL,
    [LOCATION] [varchar](64) NULL,
CONSTRAINT [PK_LATA] PRIMARY KEY CLUSTERED
(
    [LATA] ASC

```

```
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[ocn](
    [OCN] [char](4) NOT NULL,
    [OVERALL_OCN] [char](4) NULL,
    [TYPE] [varchar](8) NULL,
    [NECA] [char](1) NULL,
    [COMPANY] [varchar](128) NULL,
    [DBA] [varchar](128) NULL,
    [HOLDING] [varchar](128) NULL,
    CONSTRAINT [PK_ocn] PRIMARY KEY CLUSTERED
(
    [OCN] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[county](
    [CountyCode] [char](5) NOT NULL,
    [Country] [char](2) NOT NULL,
    [State] [char](2) NOT NULL,
    [Name] [varchar](128) NOT NULL,
    [Type] [varchar](80) NULL,
    [LandArea] [int] NULL,
    [Population] [int] NULL,
    CONSTRAINT [PK_county] PRIMARY KEY CLUSTERED
(
    [CountyCode] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[cbsa](
    [CBSA] [char](5) NOT NULL,
    [CSA] [char](3) NULL,
    [AREA_NAME] [varchar](64) NULL,
    [STATE] [varchar](20) NULL,
    [AREA_TYPE] [varchar](64) NULL,
    CONSTRAINT [PK_cbsa] PRIMARY KEY CLUSTERED
(
    [CBSA] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[msa](
    [MSA] [char](4) NOT NULL,
    [TYPE] [varchar](8) NULL,
    [NAME] [varchar](128) NULL,
    [CMSA] [char](2) NULL,
    [POPULATION] [int] NULL,
    CONSTRAINT [PK_msa] PRIMARY KEY CLUSTERED
(
    [MSA] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON,
ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]
GO
SET ANSI_PADDING OFF
```



**ORACLE**

```

CREATE TABLE "npanxx" (
  "NPA" CHAR(3) NOT NULL ENABLE,
  "NXX" CHAR(3) NOT NULL ENABLE,
  "BLOCK_ID" CHAR(1) NOT NULL ENABLE,
  "TBP_IND" CHAR(1),
  "LATA" CHAR(5),
  "LTYPE" CHAR(1),
  "CONTAM" CHAR(1),
  "STATE" CHAR(2),
  "COUNTRY" CHAR(2),
  "WC" VARCHAR(128),
  "SWITCH" CHAR(11),
  "RCSTATUS" CHAR(2),
  "RCTYPE" CHAR(1),
  "RC" VARCHAR(128),
  "TZ" CHAR(2),
  "DST" CHAR(1),
  "ZIP" VARCHAR(7),
  "ZIP2" VARCHAR(7),
  "ZIP3" VARCHAR(7),
  "ZIP4" VARCHAR(7),
  "FIPS" CHAR(5),
  "FIPS2" CHAR(5),
  "FIPS3" CHAR(5),
  "CBSA" CHAR(5),
  "CBSA2" CHAR(5),
  "MSA" CHAR(4),
  "PMSA" CHAR(4),
  "LATITUDE" NUMBER,
  "LONGITUDE" NUMBER,
  "OCN_CATEGORY" CHAR(1),
  "OCN" CHAR(4),
  "DERIVED_FROM_NPA" CHAR(3),
  "NEWNPA" VARCHAR(35),
  "OVERLAY" CHAR(1),
  "OLSON" VARCHAR(128),
  "UTC" CHAR(6),
  CONSTRAINT "npanxx_PK" PRIMARY KEY ("NPA", "NXX", "BLOCK_ID") ENABLE
);

CREATE TABLE "lata"(
  "LATA" CHAR(5) NOT NULL ENABLE,
  "STATE" CHAR(2),
  "COUNTRY" CHAR(2),
  "LOCATION" VARCHAR(64),
  CONSTRAINT "lata_PK" PRIMARY KEY ("LATA") ENABLE
);

CREATE TABLE "ocn"(
  "OCN" CHAR(4) NOT NULL ENABLE,
  "OVERALL_OCN" CHAR(4),
  "TYPE" VARCHAR(8),
  "NECA" CHAR(1),
  "COMPANY" VARCHAR(128),
  "DBA" VARCHAR(128),
  "HOLDING" VARCHAR(128),
  CONSTRAINT "ocn_PK" PRIMARY KEY ("OCN") ENABLE
);

```

```
CREATE TABLE "county"(  
  "CountyCode" CHAR(5) NOT NULL ENABLE,  
  "Country" CHAR(2),  
  "State" CHAR(2),  
  "Name" VARCHAR(128),  
  "Type" VARCHAR(80),  
  "LandArea" int,  
  "Population" int,  
  CONSTRAINT "county_PK" PRIMARY KEY ("CountyCode ") ENABLE  
);  
  
CREATE TABLE "cbsa"(  
  "CBSA" CHAR(5) NOT NULL ENABLE,  
  "CSA" CHAR(3),  
  "AREA_NAME" VARCHAR(64),  
  "STATE" VARCHAR(20),  
  "AREA_TYPE" VARCHAR(64),  
  CONSTRAINT "cbsa_PK" PRIMARY KEY ("CBSA") ENABLE  
);  
  
CREATE TABLE "msa"(  
  "MSA" CHAR(4) NOT NULL ENABLE,  
  "TYPE" VARCHAR(8),  
  "NAME" VARCHAR(128),  
  "CMSA" CHAR(2),  
  "POPULATION" int,  
  CONSTRAINT "msa_PK" PRIMARY KEY ("MSA") ENABLE  
);
```

## Appendix A – State, province, and territory codes

### United States - States and territories

AL	Alabama	NJ	New Jersey
AK	Alaska	NM	New Mexico
AZ	Arizona	NY	New York
AR	Arkansas	NC	North Carolina
CA	California	ND	North Dakota
CO	Colorado	OH	Ohio
CT	Connecticut	OK	Oklahoma
DE	Delaware	OR	Oregon
DC	District of Columbia	PA	Pennsylvania
FL	Florida	RI	Rhode Island
GA	Georgia	SC	South Carolina
HI	Hawaii	SD	South Dakota
ID	Idaho	TN	Tennessee
IL	Illinois	TX	Texas
IN	Indiana	UT	Utah
IA	Iowa	VT	Vermont
KS	Kansas	VA	Virginia
KY	Kentucky	WA	Washington
LA	Louisiana	WV	West Virginia
ME	Maine	WI	Wisconsin
MD	Maryland	WY	Wyoming
MA	Massachusetts	AS	American Samoa <sup>1</sup>
MI	Michigan	FM	Micronesia
MN	Minnesota	GU	Guam
MS	Mississippi	MH	Marshall Islands
MO	Missouri	MP	Northern Mariana Islands <sup>2</sup>
MT	Montana	PW	Palau
NE	Nebraska	PR	Puerto Rico
NV	Nevada	UM	Minor Islands
NH	New Hampshire	VI	Virgin Islands

### Canada - Provinces and territories

AB	Alberta	NU	Nunavut <sup>3</sup>
BC	British Columbia	ON	Ontario
MB	Manitoba	PE	Prince Edward Island
NB	New Brunswick	QC	Quebec <sup>4</sup>
NL	Newfoundland and Labrador <sup>5</sup>	SK	Saskatchewan
NT	Northwest Territories	YT	Yukon
NS	Nova Scotia		

### Mexico - States and territories

AGS	AGUASCALIENTES	MOR	MORELOS
BC	BAJA CALIFORNIA	NAY	NAYARIT

<sup>1</sup> COMMON LANGUAGE® abbreviation for American Samoa is AM

<sup>2</sup> COMMON LANGUAGE® abbreviation for Northern Mariana Islands is NN

<sup>3</sup> COMMON LANGUAGE® abbreviation for Nunavut is VU

<sup>4</sup> COMMON LANGUAGE® abbreviation for Quebec is PQ

<sup>5</sup> COMMON LANGUAGE® abbreviation for Newfoundland and Labrador is NF

BCS	BAJA CALIFORNIA SUR	NL	NUEVO LEON
CAM	CAMPECHE	OAX	OAXACA
COAH	COAHUILA	PUE	PUEBLA
COL	COLIMA	QRO	QUERETARO
CHIS	CHIAPAS	QROO	QUINTANA ROO
CHIH	CHIHUAHUA	SLP	SAN LUIS POTOSI
DF	DISTRITO FEDERAL	SIN	SINALOA
DGO	DURANGO	SON	SONORA
GTO	GUANAJUATO	TAB	TABASCO
GRO	GUERRERO	TAM	TAMAULIPAS
HGO	HIDALGO	TLAX	TLAXCALA
JAL	JALISCO	VER	VERACRUZ
MEX	MEXICO	YUC	YUCATAN
MICH	MICHOACAN	ZAC	ZACATECAS

## Appendix B – Country codes

Countries, islands, and territories participating in the North American Numbering Plan.

ISO 3166-1	FIPS 104-1	Country
US	US	United States
CA	CA	Canada
BS	BA	Bahamas
BB	BD	Barbados
AI	AI	Anguilla
AG	AN	Antigua and Barbuda
VG	BV	Virgin Islands, British
KY	CQ	Cayman Islands
BM	BM	Bermuda
GD	GN	Grenada
TC	TC	Turks and Caicos Islands
MS	RT	Montserrat
SX	SF	Sint Maarten
LC	SA	Saint Lucia
DM	DM	Dominica
VC	ZF	Saint Vincent and the Grenadines
DO	DR	Dominican Republic
TT	TR	Trinidad and Tobago
KN	KA	Saint Kitts and Nevis
JM	JM	Jamaica

## Appendix C – United States Major Trading Areas

01	New York	27	Phoenix
02	Los Angeles-San Diego	28	Memphis-Jackson
03	Chicago	29	Birmingham
04	San Francisco-Oakland-San Jose	30	Portland
05	Detroit	31	Indianapolis
06	Charlotte-Greensboro-Greenville-Raleigh	32	Des Moines-Quad Cities
07	Dallas-Fort Worth	33	San Antonio
08	Boston-Providence	34	Kansas City

09	Philadelphia	35	Buffalo-Rochester
10	Washington-Baltimore	36	Salt Lake City
11	Atlanta	37	Jacksonville
12	Minneapolis-St. Paul	38	Columbus
13	Tampa-St. Petersburg-Orlando	39	El Paso-Albuquerque
14	Houston	40	Little Rock
15	Miami-Fort Lauderdale	41	Oklahoma City
16	Cleveland	42	Spokane-Billings
17	New Orleans-Baton Rouge	43	Nashville
18	Cincinnati-Dayton	44	Knoxville
19	St. Louis	45	Omaha
20	Milwaukee	46	Wichita
21	Pittsburgh	47	Honolulu
22	Denver	48	Tulsa
23	Richmond-Norfolk	49	Alaska
24	Seattle (Excluding Alaska)	50	Guam-Northern Mariana Islands
25	Puerto Rico-U.S. Virgin Islands	51	American Samoa
26	Louisville-Lexington-Evansville		

## Appendix D – United States Telephone Number Format and Values

The telephone numbering address is a ten-digit number that consists of the following three basic parts:

- A 3-digit Numbering Plan Area (NPA) code, commonly called the area code.
- A 3-digit Central Office (CO) code referred to as the NXX code. The term Central Office, or CO, code is used in this document because of its long-standing use and because the NXX format is used for both CO Codes and NPA codes.
- A 4-digit line number previously referred to as a station number.

The format of a NANP Number is NXX-NXX-XXXX<sup>6</sup> where N = digits 2 through 9 and X = any digit of 0 through 9. The digit positions in the NANP format can be identified by alphabetical characters using the following format ABC-DEF-GHIJ, where ABC is the NPA, DEF is the CO Code, and GHIJ is the Line Number.

Therefore: A United States telephone number is a ten-digit number that contains two 3-digit codes and a 4-digit line number. The values of these telephone numbers are the decimal digits 0 through 9.

When written or printed, these groups of digits should be visually separated by dashes, spaces or periods in accordance with ITU-T Rec. E.123 “Notation for national and international telephone numbers, e-mail addresses and Web addresses” in order to make them easier to recognize and remember (e.g., NXX-NXX-XXXX).

When a United States telephone number is written or printed as an international number, the number should be prefixed by “+1” and a space (e.g., +1 NXX-NXX-XXXX).

---

<sup>6</sup> The use of the Area Code is optional in some areas that permit 7-digit local dialing.