precisely

LATAInfo

Product Guide

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1 – Getting Started

In this section

LATAInfo Overview

Local Access Telephone Areas (LATAs) identify a telephone call's carrier type. LATAInfo offers a map database of these LATAs, allowing you to easily differentiate calls carried by a Local Exchange Carrier (LEC) from those carried by a long-distance provider. The LATAInfo database covers the continental United States, Alaska, Hawaii, and Puerto Rico.

LATAInfo is a map database of Local Access Transport Areas (LATAs) across the United States. LATAs are geographic regions unique to the telecommunications industry. They are used to determine whether a telephone call is carried by a Local Exchange Carrier (LEC) or a long-distance provider. In general, each LATA contains a single metropolitan area. All telephone calls within a specific LATA are routed by LECs. However, telephone calls between two parties in different LATAs must, by law, be 'transported' by a long-distance carrier.

LATAInfo converts information on the nation's local access and long-distance markets – previously available only in tabular format – into a concise, easy-to-use map.

By combining the information in LATAInfo with demographic, business, and customer data, you can identify the best markets for growth in local telecommunications traffic. Applying this type of analysis enables you to make better-informed decisions, control costs, identify marketing opportunities, and enhance profitability.
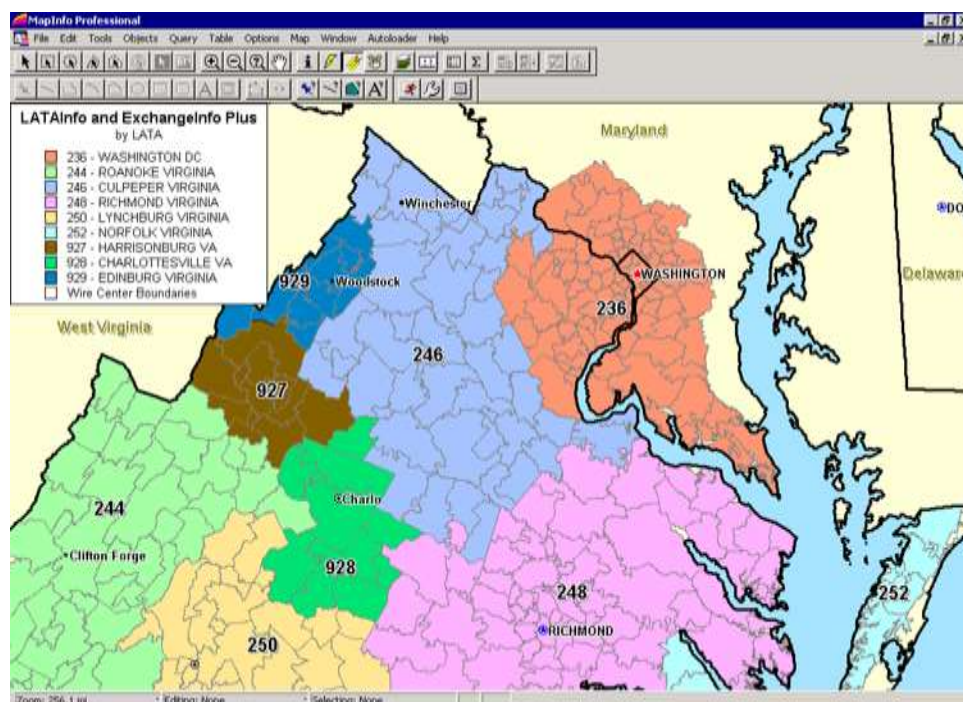

Figure 1 - LATAInfo data combined with ExchangeInfo telecom database

In the figure above, showing these data layers together allows you to determine which exchange areas in Virginia can route calls to each other without the need for a long distance carrier.

Coverage and Projection

The LATAInfo database has the following coverage, scale, coordinates, and projection:

Coverage	United States, Guam, US Virgin Islands, Northern Mariana Islands
Scale	1:24,000
Coordinates	Latitude/Longitude
Projection	NAD 83

File Types

LATAInfo is supplied in MapInfo TAB file format. The file set can contain the following file types:

Extension	File Type
.DAT	Data file
.ID	Identification file
.IND	Index file
.MAP	Map file
.TAB	Tabular file

In order to properly use LATAInfo, the following rules apply:

- You must have access to all of the files in the file set
- All files must be located in the same directory.

Installation

Precisely recommends using MapInfo Pro **version 7 or higher** in conjunction with our telecommunication data products.

To install LATAInfo:

1. Extract the contents of the compressed delivery file to a temporary folder location.

2. Copy the contents of the **Data** folder to the desired destination folder. If the destination folder already contains a dataset of a previous vintage, be sure to use the **Replace** option to replace all files of the same name with files from the temporary location folder.

3. Copy the contents of the **Docs** folder (product guide and release notes) to the desired destination folder.

4. Delete files from the temporary folder location.

5. You are now ready to start using LATAInfo.

Document Conventions

The following conventions are used throughout this document:

Text Style	Significance
<u>Underlined</u>	Emphasis
Italics	Document or chapter titles, or references to specific text
Bold	Field or file name references in text
Text Style	Significance
<u>**Underlined bold**</u>	Commands or actions
`Typewriter font, shaded background`	Keyboard input or screen output

Field Names in Schema Tables

Field names in schema tables are documented in upper-case letters. The appearance of field names in the actual product may differ from this convention.

2 – LATAInfo Database

In this section

File Structure

LATAInfo contains one file set for the entire coverage area (continental United States, Alaska, Hawaii, and Puerto Rico). The following files are included:

- **US_LATA.DAT**
- **US_LATA.ID**
- **US_LATA.IND**
- **US_LATA.MAP**
- **US_LATA.TAB**

Table Structure

Field Name	Data Type (Length)	Index	Description
LATA_ID	CHAR (5)	Yes	LATA ID number
LATA_NAME	CHAR (100)	No	Name of LATA
MAJOR_LOC	CHAR (100)	No	Major local operating companies (LOCs) serving this LATA
AREA_CODES	CHAR (100)	No	Area codes in this LATA

Acronyms

This section lists the acronyms used in Precisely's telecommunications data products. Definitions of these terms are found in the *Glossary* section of this product guide.

AHJ: Authority Having Jurisdiction

ALI: Automatic Location Identification

ANI: Automatic Number Identification

CLEC: Competitive Local Exchange Carrier

CLLI: Common Language Location Identifier; Wire Center Code

CO: Central Office

CRTC: Canadian Radio-television and Telecommunications Commission

E9-1-1: Enhanced 9-1-1

ESRD: Emergency Services Routing Digit

ESRK: Emergency Services Routing Key

FCC: Federal Communications Commission

FIPS: Federal Information Processing Standard [codes]

GIS: Geographic Information System

ILEC: Incumbent Local Exchange Carrier

LATA: Local Access Transport Area

LEC: Local Exchange Carrier

MSAG: Master Street Address Guide

NPA: Numbering Plan Area; area code

NXX: Prefix

OCN: Operating Company Number

PCS: Personal Communications Services

PSAP: Public Safety Answering Point

PRCD: Province Code and Census Division [code]

PSTN: Public Switched Telephone Network

RBOC: Regional Bell Operating Company

SQL: Structured Query Language

V&H: Vertical and Horizontal [grid coordinates]

VoIP: Voice over Internet Protocol

Glossary

This section lists and defines terms used throughout this document and in Precisely's telecommunications data products.

9-1-1 Service Area: The geographic area that has been granted by a state or local governmental body to provide 9-1-1 service.

9-1-1 System: The set of network, database, and CPE (Customer Premises Equipment) components required to provide 9-1-1 service.

Area Code: Also referred to as a Numbering Plan Area or NPA, the area code is a three-digit code designating a "toll" center in the United States or Canada. The first three digits of a telephone number (usually shown in parentheses) are the area code. For example, in the telephone number (412) 372-2399, the area code is 412.

Automatic Location Identification (ALI): The automatic display at the PSAP of the caller's telephone number, the address/location of the telephone, and supplementary emergency services information.

Automatic Number Identifier (ANI): The telephone number associated with the access line from which a call originates.

Backup Public Safety Answering Point: Typically, a disaster recover answering point that serves as a backup to the primary PSAP and is not co-located with the primary PSAP. PSAP Pro does not contain Backup PSAPs.

Basic 9-1-1: An emergency telephone system that automatically connects 9-1-1 callers to a designated answering point. Call routing is determined by originating central office only. Basic 9-1-1 may or may not support ANI and/or ALI.

Call Routing: The capability to selectively route the 9-1-1 call to the appropriate PSAP.

Cellular: The cellular radiotelephone service is a mobile radiotelephone service in which common carriers are authorized to offer and provide mobile telecommunications service for hire to the general public, using cellular systems. Cellular systems in the United States operate in 824-894 MHz frequency band and have 30 kHz channel spacing.

Central Office (CO): A telephone company facility where a subscriber's lines are joined to the switching equipment. This connects subscribers to each other for local and long distance service. The CO actually delivers the dial tone to the subscriber's phone equipment. Each CO is assigned to a unique 11-character CLLI Code.

Common Language Location Identifier (CLLI Code): Pronounced *silly code*, this is a code used to locate Wire Centers and switches. A wire center is assigned an 8-character CLLI Code; switches connected to a specific Wire Center are assigned an 11-character CLLI Code, the first 8 characters of which are the CLLI Code of the Wire Center.

Competitive Local Exchange Carrier (CLEC): A Competitive Local Exchange Carrier (CLEC) provides alternate service in areas served by either an RBOC or ILEC. CLECs are not required to provide service to all locations within their service territory and can decline to offer service to particular regions or consumers.

E9-1-1: The wireless Enhanced 9-1-1 (E9-1-1) rules seek to improve the effectiveness and reliability of wireless 9-1-1 service by providing 9-1-1 dispatchers with additional information on wireless 9-1-1 calls. The wireless E9-1-1 program is divided into two parts: Phase I and Phase II. Phase I requires carriers, upon valid request by a local Public Safety Answering Point (PSAP), to report the telephone number of a wireless 9-1-1 caller and the location of the antenna that received the call. Phase II requires wireless carriers to provide far more precise location information, within 50 to 300 meters in most cases. The deployment of E9-1-1 requires the development of new technologies and upgrades to local 9-1-1 PSAPs, as well as coordination among local public safety agencies, wireless carriers, technology vendors, equipment manufacturers, and local wireline carriers.

Emergency Services Routing Digit (ESRD): Either a 10-digit North American Numbering Plan or non-NANPA number that uniquely identifies a base station, cell site, or sector that is used to route wireless emergency calls through the network. The ESRD may also be used to retrieve ALI data associated with the call. These numbers can be dialable or non-dialable over the PSTN. PSPA Pro does not contain ESRDs.

Emergency Services Routing Key (ESRK): Either a 10-digit North American Numbering Plan or non-NANPA number that uniquely identifies a wireless emergency call. It is used to route the call through the network and retrieve associated ALI data. These numbers can be dialable or non-dialable over the PSTN. PSAP Pro does not contain ESRKs.

Exchange Area: The geographic area in which telephone prices and services are the same. The concept of an Exchange is based on geography and regulation, not equipment. An Exchange might have one or more central offices and Wire Centers. A subscriber in the Exchange Area could get service from any of the central offices within the Exchange Area.

FCC Registry: Information regarding PSAP ID, PSAP Name, and PSAP County can be obtained from the FCC's Master PSAP Registry. PSAP Pro provides the related FCC PSAP ID for each PSAP in the US for which this information can be ascertained.

Federal Communications Commission (FCC): The 9-1-1 Act directs the FCC to make 9-1-1 the universal emergency number in the United States for all telephone services, both wireline and wireless. Under FCC rules implementing the 9-1-1 Act, telephone companies and public safety organizations were expected to largely complete the transition to the use of 9-1-1 as the national emergency number by September 11, 2002. The FCC also directed telephone companies to file reports on their progress in implementing the transition to 9-1-1 under Public Notice DA 02-507. These reports are available online by searching for basic 9-1-1 carrier transition reports.

Federal Information Processing Standards (FIPS) codes: A standardized set of numeric or alphabetic codes issued by the National Institute of Standards and Technology (NIST) to ensure uniform identification of geographic entities throughout all US federal government agencies.

Geographic Information System (GIS): Computer applications, such as MapInfo Pro and CallingAreaInfo, that store and manipulate electronic maps and related data, are GIS applications.

Inbound Local Calling Area: All the NPA/NXX combinations (and associated geographic area) that can call in to a given NPA/NXX by using a local phone service provider.

Incumbent Local Exchange Carrier (ILEC): Telephone carriers that serve areas not served by RBOCs. In a given area there can be only one RBOC or ILEC offering service.

License Area: Geographic area (MTA, BTA, CMA) that is obtained through an FCC auction in order to provide wireless communication at a specified frequency.

Local Access Transport Area (LATA): The United States is divided geographically into 192 LATA regions. Local telephone companies are permitted to offer local or long distance telecommunications services within these regions.

Local Exchange Carrier (LEC): A local telephone company which can be either a Regional Bell Operating Company (RBOC) or an independent. Also referred to as ILECs.

Master Street Address Guide (MSAG): A database of street names and house number ranges within their associated communities, defining Emergency Service Zones (ESZs), along with the associated Emergency Service Numbers (ESNs) to enable proper routing of 9-1-1 calls. PSAP Pro does not contain MSAG information.

Mobile Virtual Network Operator (MVNO): A company that buys network capacity from a network operator to offer its own branded mobile subscriptions and value-added services.

Numbering Plan Area (NPA): Numbering Plan Area.

Operating Company Number (OCN): A number used to identify a specific telephone company.

Operating Company Number Name (OCN Name): The company name as shown in the Telcordia LERG database.

Paging: A signaling and control channel which operates on a set of frequencies separate from those used to support cellular voice communications.

Parent Company: Next-level-up ownership of OCN Name. This is an industry recognized company name that owns/operates multiple OCNs across the country.

Personal Communication Services (PCS): Broadband Personal Communications Service (PCS) is used to provide a variety of services, such as digital mobile telephones and wireless Internet access. These services are also called mobile telephone services and mobile data services. PCS operates in the 1850-1990 MHz bands.

Prefix (NXX): This term refers to the first three digits of a 7-digit local phone number. These first three digits refer to the number of the telephone company central office.

Primary PSAP: A PSAP to which 9-1-1 calls are routed directly from the 9-1-1 control office.

Province Code and Census Division Code (PRCD): Used in the Canadian data table to specify the Province Code and Census Division Code in which a PSAP is located. This is comparable to the **CountyFIPS** in the US data table.

Public Safety Answering Point (PSAP): The endpoint of an emergency services call. PSAPs are responsible for answering emergency 9-1-1 calls.

Public Switched Telephone Network (PSTN): The international telephone system, based on copper wires carrying analog voice data.

Rate Center: Rate Centers are geographic locations laid out according to telecommunications industry standards. The distance between two Rate Centers is used to calculate rates for telecommunications services between the two Rate Centers.

Regional Bell Operating Company (RBOC): The term given to the 11 companies that were created from the initial divestiture of AT&T in 1984. After several mergers, there are currently 4 RBOCs.

Secondary PSAP: A PSAP to which 9-1-1 calls are transferred from a primary PSAP.

Selective Routing: The routing of a 9-1-1 call to the proper PSAP based on the caller's location.

Selective Transfer: The capability to transfer a 9-1-1 call to a response agency by operation of one of several buttons, typically designated as police, fire, and emergency medical.

SQL: Structured Query Language. A powerful database language you can use to pull desired information from the CallingAreaInfo output database. By using various SQL commands, you can sort through the raw output and find the kinds of information you need for numerous applications.

Trunk: Typically, a communication path between central office switches, or between the 9-1-1 control office and the PSAP. PSAP Pro does not contain 9-1-1 trunks.

V & H: Vertical and Horizontal grid coordinates. These numbers are assigned to locate each telephone company's Central Office or Rate Center on a grid of the North American continent. Essentially, V & H are the "latitude and longitude" values of the telecom industry.

Voice over Internet Protocol (VoIP): VoIP is a system for providing telephone service over the Internet.

Wire Center: The location where a telephone company terminates local lines; this is usually the same location as a Central Office. A Wire Center might have one or more Central Offices. Because of this, the terms "Wire Center," "Central Office," and "End Office" are often used interchangeably.

Wire Center Code (CLLI): A unique 8-character code assigned to each Wire Center.

Wire Center Servicing Area: The geographic extent of an Exchange Area served by a single Wire Center.

Wireless Carrier: A cellular, PCS, or paging company that provides wireless voice or paging service.

Product Feedback and Support

Contact our Support team (software.support@precisely.com) for product support and additional product information. You can also submit your innovative ideas or comment on existing submissions in a way that is visible to all participants via our Support site (https://support.precisely.com). This site also includes information about our complete portfolio of Data products.

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