

# TruOps Telecom Routing Administration (TRA)

LERG™ Routing Guide

**Educational Document**

iconectiv System Documentation  
BD-TRA-LERG-ED  
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### Prepared for iconectiv TruOps Telecom Routing Administration (TRA) by:

- ◆ Common Interest Group on Routing and Rating

### Technical Contact:

TruOps Telecom Routing Administration (TRA)  
TRA Customer Care Center (CCC)  
Telephone: (732) 699-6700 or 866-NPA-NXXS (866-672-6997)  
Email: [tra@iconectiv.com](mailto:tra@iconectiv.com)

### Document Availability:

To obtain copies of this document, contact the Telecom Routing Administration Customer Care Center (CCC) on 1-866-NPA-NXXS or 1-732-699-6700, or at [tra@iconectiv.com](mailto:tra@iconectiv.com). A copy of the most recent version of this document can be downloaded at [www.trainfo.com](http://www.trainfo.com).

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## General

### Overview/Purpose

This document is intended as a reference providing an overview of the *TruOps TRA LERG Routing Guide*. The *LERG Routing Guide* provides data obtained from the iconectiv Business Integrated Routing and Rating Database System (BIRRDs) into which data is entered by Service Providers (SPs) and/or their agents. The *LERG Routing Guide* is comprised of files, each of which focuses on different aspects of the data.

### File Descriptions

The following provides a summary description of the data each file contains.

#### **LERG1 (Operating Company Number (OCN) Information)**

The LERG1 file provides high-level information about OCNs (e.g. name and type of company including contact information). The contact name defaults to the party who requested the OCN unless the company has specifically requested another party be listed for purposes of addressing LERG Routing Guide data.

OCNs are used extensively throughout iconectiv Telecom Routing Administration (TRA) products to identify companies, numbering resources, switches, etc. Company Codes that are assigned by the National Exchange Carrier Association (NECA) comprise a large subset of the full list of OCNs. NECA is also responsible for maintaining the assignment guidelines for Company Codes. The term OCN is used throughout industry guidelines, Federal Communications Commission (FCC) orders, etc., in lieu of the Company Code terminology. The differentiation in terminology between NECA Company Codes and iconectiv OCNs is needed because there are instances when iconectiv assigns OCNs needed for the identification of a non-operating company who has Administrative Operating Company Number (AOCN) responsibilities and performs the TRA BIRRDs data entries for their client operating companies and for some non-LERG Routing Guide purposes. Following is an example of when iconectiv would make an OCN assignment:

A consulting company may perform BIRRDs data entry for many communications service providers but is not itself a communications service provider. The consulting company would not qualify for the assignment of a NECA Company Code and cannot share or use the Company Codes assigned to their clients. Therefore, for administrative purposes, iconectiv assigns the consulting company an OCN for identification purposes that would be used as the consulting company's AOCN for BIRRDs data entry. (iconectiv assigned OCNs will always have an alpha in the first position and Company Codes assigned by NECA will always have a numeric in the first position.)

The contact information in LERG1 is provided by the OCN company to TRA for BIRRDs data entry. Validity and maintenance of the contact information is the responsibility of the OCN company.

#### **LERG1CON (Additional "Contact" Information for OCNs)**

The LERG1CON file is information directly entered by each OCN or its designated AOCN, if not its own AOCN. It is recommended that an OCN have, at minimum, the SERVICE OF SUBPOENA contact identified. The intent of the file is for companies that have different people

and organizations performing specific functions, their contact information can be identified via this file.

### **LERG2 (Country Code Information)**

The LERG2 file is independent from other LERG Routing Guide files. This file contains high-level Country Code information (e.g. Republic of Hungary = 36). There is no city or international dialing information in LERG2. The file is provided for reference should there be a need for a resource for Country Codes.

The official list of ITU-T Recommendation E.164 assigned country codes is available via the International Telecommunication Union (ITU) at <https://www.itu.int/pub/T-SP-E.164D-11-2011>.

ISO2 country codes (a two-character code) documents are available from the International Organization for Standardization (ISO) at [www.iso.org](http://www.iso.org). Specifically, a list can be obtained online at <https://www.iso.org/obp/ui/#search>.

### **LERG3 (NPA (Area Code) Information)**

The LERG3 file contains high-level information about Numbering Plan Areas (NPAs) (aka Area Codes). This includes the effective date of the NPA, permissive dialing periods for splits and overlays, the NPA that had previously served the area (or continues to do so in a case of an overlay), test numbers with their start and end dates for near term activity, etc.

### **LERG4 (SS7 “Point Code” assignments to companies)**

The LERG4 file contains Signaling System 7 (SS7) “Point Code” assignments (to companies) at the network, cluster, or member levels of coding. Network and cluster code assignments permit a company to assign member level codes on its own. The file does not indicate which point codes are actually in use or the network elements to which the company may have assigned its point codes.

### **LERG5 (NPA/LATA cross reference)**

The LERG5 file identifies the NPAs in use within a Local Access and Transport Area (LATA). The LATA information is then grouped by Region.

### **LERG6 (NPA NXX BLOCK Information)**

The LERG6 file provides NPA NXX information and, where applicable, block assignments within the NPA NXX. NPA NXX assignments (made by the country’s Code Administrator) are represented with a block value of “A”. Thousands-Block Pooling assignments (made by the Pooling Administrator in the US and its territories only) are represented by numeric block values (0-9). Only those blocks actually assigned and entered by the service provider into BIRRDs (i.e., not all blocks, 0-9 may appear in LERG6). This file includes data such as the Exchange Area<sup>1</sup> associated with each record, OCN, serving switch/POI with an associated Switch Homing Arrangement (SHA) Indicator, and LATA (both switch and Rate Center LATA).

“A” and numeric block information:

NXX codes are three digits beginning with a numeric 2 thru 9. An “A” in the block field of LERG6 files identifies the record as assigned to the code holder. In many cases, numeric blocks, assigned by the Pooling Administrator, will appear associated with an NPA NXX. The “A” block information exists primarily for default routing purposes. Information provided for numeric blocks (e.g. COCTYPE, OCN) may differ from the “A” block ID information if the block holder is a different service provider than the “A” record holder. In cases where no numeric blocks exist for a non-pooled NXX, it is assumed that the “A” Block ID information pertains to

blocks associated with the identified code holder. It should be noted that not all North American Numbering Plan (NANP) countries participate in thousand-block pooling.

Operator Access Tandem Codes (ATCs) are in the NPA-0/1XX format or in the NPA + format.

### **LERG6ATC (ATC Information)**

The LERG6ATC file is an expansion of data for those records in the LERG6 file that have a COCTYPE value of ATC. This file expands the information by appending the Operator Service “service” codes for each ATC record. The NPA NXX information for ATCs (besides the OS codes) is also included in the primary LERG6 file. ATC records will not have numeric blocks associated with them.

### **LERG6ODD (Expanded Information for Oddball NPA NXXs)**

The LERG6ODD file is an expansion of data for those records in the LERG6 file that have COCTYPE values designated as “Oddball.” “Oddball Codes” generally do not have an Exchange Area or switch identified with them. These codes exist for various reasons and include NXXs such as N11s, 958 (testing), 976 (Information Providers); as well as NXXs that may be established by a given company, within a given NPA, etc., for various extraordinary reasons and services. The “Oddball Code” file includes a Notes field for any Oddball NPA NXX record that may have the Notes field populated. Only those Oddball Codes whose current and/or future views have a non-blank Note are listed in LERG6ODD. All the NPA NXX information for all Oddball Codes (besides the Notes) is also included in the primary LERG6 file.

### **LERG6INS (Month-to-Month Changes)**

The LERG6INS file represents data changes between the current monthly LERG6 file and the LERG6 file issued the previous month. All the activity in the “insert” file is appropriately reflected in the primary file (e.g. LERG6) as well. Use of this file can be considered optional depending on a LERG Routing Guide user’s need in reconciling data changes appearing in the primary files, in tracking month-to-month record changes, etc. The “insert” file represents changes from the close of the previous LERG Routing Guide.

- Changes made since the previous LERG Routing Guide and effective in the prior month are included in the “insert” file with an appropriate Effective Date (EFFDATE) that is after the close of the previous LERG Routing Guide. These cases will appear in the current primary LERG6 file as “current” (blank EFFDATE and STATUS). Removals and disconnects falling under this scenario will not appear in the primary file.
- Other changes in the “insert” file constitute future views that, depending on the indicated activity (add/remove), would correspondingly have, unless subsequently changed in the same “insert” file, the same future effective date in both the “insert” and primary files. Changes are based on EFFDATE and can involve an EFFDATE view that was added, removed, or was previously issued but has had one or more associated field values changed. Only future activity that was changed, removed, or added since the previous monthly LERG Routing Guide will appear in the “insert” file, not all future activity.
- Data changes that affect only the AOCN field are not included in the “insert” files.

### **LERG7 (Switch/POI Information)**

The LERG7 file contains information regarding switches, identified by an eleven-character code that, with few exceptions, should be a Common Language® Location Code (CLLI™ Code) and supported by the iconectiv Common Language organization. There may be multiple CLLI Codes for a single physical switch for various reasons (switch performing multiple functions e.g.

end office and tandem). CLLI Codes may also reflect a “Point of Interface (POI)” established as the interconnection point between two carriers that may or may not be at the same location as an actual physical switch. Not all assigned CLLI Codes are listed in the LERG Routing Guide – only those that are relevant to accessing the local network and routing calls within the local network are included. This file provides high-level switch information such as address, V&H coordinates, switch functionalities, equipment type, etc.

### **LERG7INS (Month-to-Month Data Changes)**

The LERG7INS file represents data changes between the current monthly LERG7 file and the LERG7 file issued the previous month. All the activity in the “insert” file is appropriately reflected in the primary file (e.g. LERG7) as well. Use of this file can be considered optional depending on a LERG Routing Guide user’s need in reconciling data changes appearing in the primary files, in tracking month-to-month record changes, etc. The “insert” file represents changes from the close of the previous LERG Routing Guide.

- Changes made since the previous LERG Routing Guide and effective in the prior month are included in the “insert” file with an appropriate Effective Date (EFFDATE) that is after the close of the previous LERG Routing Guide. These cases will appear in the current primary LERG7 file as “current” (blank EFFDATE and STATUS). Removals and disconnects falling under this scenario will not appear in the primary file.
- Other changes in the “insert” file constitute future views that, depending on the indicated activity (add/remove), would correspondingly have, unless subsequently changed in the same “insert” file, the same future effective date in both the “insert” and primary files. Changes are based on EFFDATE and can involve an EFFDATE view that was added, removed, or was previously issued but has had one or more associated field values changed. Only future activity that was changed, removed, or added since the previous monthly LERG Routing Guide will appear in the “insert” file, not all future activity.
- • Data changes that affect only the AOCN field are not included in the “insert” files

### **LERG7SHA (Switch Homing Arrangement Information)**

The LERG7SHA file contains information regarding the switch homing arrangements. Homing arrangements include such situations as mapping to a switch, any appropriate Feature Group B, C, and/or D tandems; IntraLATA tandems; Local tandems; Signal Transfer Points (STPs); ACTUAL SWITCH (populated when a Point of Interface (POI) is populated as a switch); etc.

The SHA IND field is critical in assessing homing arrangements and their application against other LERG Routing Guide data, especially for NPA NXXs that route to/from a given switch. A given switch may have more than one Feature Group B, C, or D tandem, etc., associated with it. This is due to various factors. If/when attempting to identify a specific tandem for a given NXX/switch combination in LERG6, the switch and associated SHA IND in LERG6 must be tied in unison to the same combination in LERG7SHA to determine the appropriate homing for the given NPA NXX.

Homing arrangements entered into BIRRDs must be valid and denote connectivity between the two switching entities for the function(s) indicated. Incorrect homing arrangements in BIRRDs may result in blocked calls destined for a switching entity.

### **LERG7SHA INS (Month-To-Month Data Changes)**

The LERG7SHA INS file represents data changes between the current monthly LERG7SHA file and the LERG7SHA file issued the previous month. All the data in the “insert” file is included in

the primary file (e.g. LERG7SHA) as well. Use of this file can be considered optional depending on a LERG Routing Guide user's need in reconciling data changes appearing in the primary files, in tracking month-to-month record changes, etc. The "insert" file represents changes from the close of the previous LERG Routing Guide.

- Changes made since the previous LERG Routing Guide and effective in the prior month are included in the "insert" file with an appropriate Effective Date (EFFDATE) that is after the close of the previous LERG Routing Guide. These cases will appear in the current primary LERG7SHA file as "current" (blank EFFDATE and STATUS). Removals and disconnects falling under this scenario will not appear in the primary file.
- Other changes in the "insert" file constitute future views that, depending on the indicated activity (add/remove), would correspondingly have, unless subsequently changed in the same "insert" file, the same future effective date in both the "insert" and primary files. Changes are based on EFFDATE and can involve an EFFDATE view that was added, removed, or was previously issued but has had one or more associated field values changed. Only future activity that was changed, removed, or added since the previous monthly LERG Routing Guide will appear in the "insert" file, not all future activity.
- Data changes that affect only the AOCN field are not included in the "insert" files.

### **LERG8 (Rate Center Information)**

The LERG8 file represents Rate Centers<sup>1</sup> that work in conjunction with "Exchange Areas"/"Rate Exchange Areas," and similar terms. Rate Centers are points, defined by Vertical and Horizontal Coordinates, inside of Exchange Areas<sup>1</sup>. Exchange Areas are defined in tariffs filed on a state basis, as may be required for certain service providers and are based on various factors that can vary by state/province. An Exchange Area may be a section of a large city, a specific town, or an area that may encompass multiple towns. In general, Exchange Areas historically define an area in which wireline (or wireline to cellular) calls that have originated and terminated within its boundaries (based on NXXs defined to the Exchange Area) are considered local (non-toll) calls. Note that local calls can also extend to other (e.g. adjoining) Exchange Areas (information regarding this extension of local calling area is not provided in the LERG). There are multiple sources available to identify local calling areas. One source for identifying local calling areas is iconectiv's Local Calling Area Data Source (LCADS) product). See Reference Section for additional Rate Center/Exchange Area information.

### **LERG8LIR (Local Interconnection Region)**

The LERG8LIR file pertains only to Canadian data. This file provides information about Local Interconnection Regions (LIRs) in Canada and maps them to the Exchange Areas<sup>1</sup> that fall within their boundaries. Not all Exchange Areas in Canada map to an LIR.

### **LERG8LOC (Localities associated with Rate Centers)**

The LERG8LOC file identifies localities associated with a given Exchange Area<sup>1</sup> (LERG8). Often, several localities (e.g. towns) are included in a given Exchange Area. This information can be useful in cases where a town is known and its Exchange Area needs to be identified. Note that the localities identified for a given Exchange Area are not intended to be a complete listing of each and every defined jurisdiction, alternative name, jurisdictional subsection, etc., that exists within the Exchange Area. County information for most Locality / Exchange Areas within the United States (where applicable and when not a locality covering multiple counties) is also provided.

## **LERG8PST (Locality Postal Codes)**

The LERG8PST file is an extension of the LERG8LOC file that associates Postal Codes to the LOCALITY records provided in the LERG.

Since Postal Codes are assigned to P.O. Boxes, organizations, and similar non-locality entities, not all Postal Codes are intended, or expected, to be represented in this data. Similarly, some LOCALITY records exist in the LERG Routing Guide for unique reasons (e.g. as Exchange Area<sup>1</sup> names that may not correlate with an actual place name) and, not being “true” localities, would not have Postal Codes. Postal Code correlation to Exchange Areas can be done by using the LOCALITY to Exchange Area relationships provided in LERG8LOC.

Due to inconsistencies in some areas between the boundaries of Postal Codes, LOCALITYs, and Exchange Areas, as well as in the definitions of LOCALITYs themselves, postal code data, especially in regards to edge/boundary areas, should be used as a reference as opposed to assuming definitive geographic relationships. Due to these inconsistencies, some areas may not yet be reflected in this file. In cases where a LOCALITY and/or Postal Code may incidentally extend into another Exchange Area, the principal Exchange Area for that data is what is provided.

Although Canadian postal data may one day be provided, postal code data exists only for the US and its Territories.

## **LERG9 (Homing Arrangements by Homed-To Switch)**

The LERG9 file is a “processed” file in that it is a processing of data provided in LERG6, LERG7, and LERG7SHA. LERG9 essentially assesses the homing of switches provided in LERG7SHA and summarizes that information by homed-to switch (e.g. by STP, Tandem, etc.). In addition, associated NPA NXX information (based on “A” BLOCK records only) is drawn from LERG6 data. Some additional LERG6 field values and some from LERG7 are also included.

Homing arrangements provided in LERG9 pertain to the “A” BLOCK records in LERG6, not the numeric blocks. Numeric blocks require routing portability to exist. Such routing is based on the Location Routing Number (LRN) that is associated with each individually ported telephone number that resides in the Number Portability Administration Center’s (NPAC’s) Service Management System (SMS) database. LRNs can essentially be viewed as telephone numbers on which call setup and routing occur, thus LERG9 can be used to “route” LRNs, as if the LRN were an NPA NXX.

This file provides a “top-down” view of homing arrangements. For example, it provides the NPA NXX and switches that may subtend a given Feature Group D Access Tandem, a Local tandem, a Host, etc. This information is also discernible from LERG7SHA.

LERG9 has historically been the largest file in the LERG Routing Guide, primarily due to all the various combinations of data that are possible. For example, all NPA NXXs for a switch may be replicated under multiple homed-to switches (e.g. Operator Services, Feature Groups B, C, D, etc.) depending on how many switches a given switch may “home to” in LERG7SHA.

## **LERG10**

The LERG10 file provides information derived from manipulation of data in other LERG Routing Guide files. Its primary purpose is in support of Operator-to-Operator interactions. The file is specifically about ATCs interrelationships. LERG10 provides a mapping of localities to ATCs.

LERG10 is used by companies that use or subscribe to operator services.

## LERG11

The LERG11 file provides information derived from manipulation of data in other LERG Routing Guide files. Its primary purpose is in support of Operator-to-Operator interactions. The file is specifically about ATCs interrelationships. LERG11 provides a mapping of NPA NXXs to ATCs.

LERG11 is used by companies that use or subscribe to operator services.

## LERG12

The LERG12 file is a means by which companies report the LRNs that are, or will be, used in relationship with telephone numbers intended to route via Local Number Portability routing concepts. This file identifies the company that has established the LRN as well as the switch to which that LRN should be associated.

### LERG12INS (month-to-month data changes)

The LERG12INS file represents data changes between the current monthly LERG12 file and the LERG12 file issued the previous month. All the data in the “insert” file is included in the primary file (e.g. LERG12) as well. Use of this file can be considered optional depending on a LERG Routing Guide user’s need in reconciling data changes appearing in the primary files, in tracking month-to-month record changes, etc. The “insert” file represents changes from the close of the previous LERG Routing Guide.

- Changes made since the previous LERG Routing Guide and effective in the prior month are included in the “insert” file with an appropriate Effective Date (EFFDATE) that is after the close of the previous LERG Routing Guide. These cases will appear in the current primary LERG12 file as “current” (blank EFFDATE and STATUS). Removals and disconnects falling under this scenario will not appear in the primary file.
- Other changes in the “insert” file constitute future views that, depending on the indicated activity (add/remove), would correspondingly have, unless subsequently changed in the same “insert” file, the same future effective date in both the “insert” and primary files. Changes are based on EFFDATE and can involve an EFFDATE view that was added, removed, or was previously issued but has had one or more associated field values changed. Only future activity that was changed, removed, or added since the previous monthly LERG Routing Guide will appear in the “insert” file, not all future activity.
- Data changes that affect only the AOCN field are not included in the “insert” files.

## LERG13

There is no longer a LERG13 file.

## LERG14

There is no longer a LERG14 file.

## LERG15

There is no longer a LERG15 file.

## LERG16

The LERG16 file provides the OCNs on the LRN record that have the IP CAPABLE OCN indicator selected to identify the OCN to which IP traffic can be routed. The intent of this field is to flag those NXXs that can be routed via IP where the origination and terminating providers have the appropriate IP interconnection/agreements in place. Having this field selected does

not prevent the call from being terminated via a Time Division Multiplex (TDM) interconnection. Records in LERG16 are a subset of records in LERG12.

### **LERG17**

The LERG17 file provides the NPA NXX A records that have the IP CAPABLE NXX indicator selected to identify any non-ported lines (default routed) within the NPA/NXX that can be routed via IP. The intent of this field is to flag those NXXs that can be routed via IP where the originating and terminating providers have the appropriate IP interconnection/agreements in place. Having this field selected does not prevent the call from being terminated via a Time Division Multiplex (TDM) interconnection. Records in LERG17 are a subset of records in LERG6.

## Reference Section

- ❖ **Note:** This Reference Section contains substantial historical references to permit the reader to put the current state of a subject into perspective. In that regard, references to company names and databases may vary to reflect the proper name that existed at the historical reference point. For example:
  - ◆ **iconectiv** – is, as of this writing, technically iconectiv, LLC. Prior to that, it was solely Telcordia Technologies, Inc. (which was owned first by SAIC, then by Warburg Pincus and Providence Equity, then by LM Ericsson). Prior to that, it was Bell Communications Research, which was also known as Bellcore.
  - ◆ **AT&T** - The American Telephone and Telegraph Company that, even at its onset, was referred to as AT&T, was established in 1899. References to AT&T at Divestiture means AT&T as existed in 1984. Throughout its history, the company has gone through, and continues to go through, numerous mergers, acquisitions, and sell offs.
  - ◆ **BIRRDS** – The database that underlies the LERG Routing Guide in 1984 was called the Routing DataBase System (RDBS). In 1994, when a separately run rating database was incorporated into RDBS, it became the Bellcore Integrated Routing and Rating Database System (BIRRDS). When Bellcore was renamed Telcordia Technologies, Inc., the Bellcore name was required to be sunset and as a result, BIRRDS was renamed the Business Integrated Routing and Rating Database System.
  - ◆ **LERG Routing Guide** – The output product of the BIRRDS database containing a number of data files. The LERG Routing Guide was known as the Local Exchange Routing Guide (LERG) until 2001 when LERG became a trademark of Telcordia Technologies, Inc. LERG is now a trademark of iconectiv, LLC.

### Equal Access Exchange Area (EAEA) subzones

Equal Access Exchange Area (EAEA) subzones are geographical subdivisions of a given LATA. At Divestiture, or soon after, in Florida only, IXCs were given permission by the Florida Public Service Commission to carry IntraLATA traffic across an EAEA boundary. They could not originate and terminate a call within an EAEA boundary, but they could carry a call that originated in one EAEA and terminate that call in another EAEA of the same LATA. In essence, this was the “real” beginning of IntraLATA competition.

The EAEA subzones are identified in the LERG Routing Guide by appending two digits to the standard 3-digit LATA number. The AT&T (legacy BellSouth) network in Florida was provisioned along the EAEA boundaries. Hence, all or most of the legacy BellSouth LERG Routing Guide switch CLLI Code and NPA-NXX code entries for Florida reflect the 3-digit LATA number and the 2-digit EAEA subzone number.

Not all service providers in Florida use the EAEA subzones. A Competitive Local Exchange Carrier (CLEC), for example, may have only one switch in a given Florida LATA. That single CLEC switch, however, may have NPA-NXX assignments that span all of the Exchanges Areas<sup>1</sup> of the various EAEAs that comprise a single LATA. In those instances, the norm would be for the LERG Routing Guide entries to show only the 3-digit LATA number (omitting the 2-digit EAEA number) for that single switch. Likewise, any NPA-NXX code assigned to the switch would carry only a 3-digit LATA number.

## Company Codes/Operating Company Numbers (OCNs)

NECA is responsible for maintaining Company Code assignment guidelines and performing the assignment of Company Codes in accordance with ATIS-0300251 (Codes for Identification of Service Providers for Information Exchange). These Company Codes are duplicated by iconectiv as OCNs and used extensively throughout the iconectiv TRA products to identify companies, numbering resources, switches, etc.

NECA was formed by telephone industry representatives because of the Federal Communications Commission's (FCC) Third Report and Order, FCC CC Docket 78-72 that mandated the creation of an exchange carrier association. The organization was established for the purpose of filing common access charge tariffs, administering access charge revenue pools, and distributing the pool revenues. The FCC order establishing NECA was released February 28, 1983 to become effective January 1, 1984.

OCN was originally a term used by Bell Communications Research and which existed in AT&T prior to Divestiture. In 1984, NECA was established to handle various processes for local exchange carriers that evolved from Divestiture. Originally, NECA was relegated to assign Company Codes to Local Exchange Carriers (LECs) and only within the 0000-5999 number range. The initial set of Company Codes was based on those used by AT&T, and which, like LATAs, were essentially assigned East to West. Outside the 0000-5999 range a small set of 9NNN (N=0-9) values were used to identify Regional Bell Operation Companies (RBOCs) (at a corporate level) and each of the 22 underlying "Bell Operating Companies" along with Southern New England Telephone and Cincinnati Bell. With the advent of wireless service providers in the early/mid 1990s, Bellcore was asked, due to various intercompany billing reasons at the onset, to assign OCNs to wireless carriers. OCNs in the 6NNN range were assigned. Primarily NECA was not permitted to assign Company Codes to other than LECs. 6NNN was chosen to not conflict with NECA assignments. After having assigned several 6NNN OCNs, Bellcore worked a solution whereby NECA agreed to assign such 6NNN codes going forward. Given the expectation that the wireless environment was expanding and with anticipation of CLECs, etc., NECA agreed and worked with TMOC to modify ATIS-0300251 to expand its Company Code numbering range to cover 0000-9999. 8NNN OCNs that Bellcore had assigned to International and Offshore, and any assigned 6NNN cases were 'moved' to NECA to prevent dual assignments. NECA then began assigning 6NNN to wireless carriers and 7NNN to CLECs. Shortly realizing the exhaust issue with these ranges, range specificity to type of carrier was eliminated. To address the need for more than 10000 Company Codes, the NECA Company Code format was changed to NXXX (N=0-9,X=0-9,A-Z), which is where current assignment processes stand.

The OCN term is often used throughout industry guidelines, FCC orders, etc., in lieu of the Company Code terminology. The differentiation in terminology between NECA Company Codes and iconectiv OCNs outside the historical and standards basis is needed because there are instances when iconectiv assigns OCNs that are not NECA assigned Company Codes. Those cases where iconectiv assigns an OCN, that is not a NECA assigned Company Code, are generally instances where an OCN is needed for the identification of a non-Operating Company who AOCN responsibilities. The AOCN companies perform the TRA BIRRDs data entries for their client operating companies and generally represent their clients in the Common Interest Group on Routing and Rating (CIGRR). OCNs assigned by iconectiv are in an ANNN (A=A-Z less W, N=0-9) format to avoid conflict with NECA assigned Company Codes.

## **Exchanges / Rate Centers / Localities**

Over time in the telecommunications industry, and as reflected in BIRRDS and LERG Routing Guide, the term “Rate Center” is often used when referring to what is technically an “Exchange Area”. Historically, Rate Center is a single point inside of an Exchange, defined by V and H coordinates, and used for rating/billing purposes. An Exchange is comprised of one or more Localities.

In BIRRDS, the Locality field is a geographic locality within the Exchange area. Exchange Area is a common term used in tariffs relative to local calling areas. Multiple Localities may exist in an Exchange Area and in such cases, one of the localities is used as the name of the Exchange Area. In BIRRDS, the Exchange Area term is called a Rate Center.

## Acronym List

<b>AOCN</b>	Administrative Operating Company Number
<b>ATC</b>	Access Tandem Code
<b>BIRRDS</b>	Business Integrated Routing and Rating Database System
<b>CIGRR</b>	Common Interest Group on Routing and Rating
<b>CLEC</b>	Competitive Local Exchange Carrier
<b>COCTYPE</b>	Central Office Code Type
<b>EAEA</b>	Equal Access Exchange Area
<b>EFFDATE</b>	Effective Date
<b>FCC</b>	Federal Communications Commission
<b>LATA</b>	Local Access and Transport Area
<b>LCADS</b>	Local Calling Area Data Source
<b>LEC</b>	Local Exchange Carrier
<b>LIR</b>	Local Interconnection Region
<b>LRN</b>	Location Routing Number
<b>NANP</b>	North American Numbering Plan
<b>NECA</b>	National Exchange Carrier Association
<b>NPA</b>	Numbering Plan Area (area code)
<b>NXX</b>	The three digits following the NPA within the NANP numbering scheme where N=2-9, X= 0-9
<b>OCN</b>	Operating Company Number
<b>OS</b>	Operator Services
<b>RBOC</b>	Regional Bell Operating Company
<b>SHA</b>	Switch Homing Arrangement
<b>SP</b>	Service Provider
<b>SS7</b>	Signaling System 7
<b>STP</b>	Signal Transfer Point
<b>TMOC</b>	Telecom Management and Operations Committee
<b>TRA</b>	Telecom Routing Administration

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### Endnotes

<sup>1</sup> In BIRRDS, LERG Routing Guide, and sometimes in the telecom industry, the term “Rate Center” is often used when referring to what is technically an “Exchange Area”.