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May 20, 2013

Ex Parte
Via Email

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

RE: *In the Matter of the Connect America Fund*
WC Docket No. 10-90

Dear Ms. Dortch:

On May 16, 2013, Jim Boyer, Zehra Venugopal, and the undersigned met with Rodger Woock, Kenneth Lynch, James Eigner, and Craig Stroup of the Wireline Competition Bureau to provide background information about Common Language® and the Connect America Fund requirements. The attached power points were used in the discussion.

A copy of this letter is being filed in the above-captioned docket.

Respectfully submitted,

Louise L. M. Tucker
Vice President –Regulatory
Senior Counsel

Cc: Rodger Woock
Kenneth Lynch
James Eigner
Craig Stroup

iconectiv™

experience
performance
results

Enabling Connect America Fund with Common Language® Information

May 16, 2013

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Meeting Purpose

- Common Language can assist the FCC with the broadband rollout, Connect America Fund (CAF) implementation, Gigabit Ethernet and Healthcare Connect initiatives
  - CAF program requires several key data elements to demonstrate that the services meet FCC's requirements and that they are offered in the appropriately identified underserved areas
  - Common Language has information, as well as services, that can facilitate accurately capturing and consistently representing this information and enabling information exchange between and amongst the carriers and FCC
  - Common Language can significantly help the CAF awardees with their information needs (both regulatory and industry operations) via a repeatable, proven process that will enable faster broadband roll out, while establishing the data integrity in the industry
- Our proven process and data integrity expertise in managing data can be beneficial in driving your reporting needs and in your communication needs with the CAF awardees
- Common Language would like to take the next step of exploring the specifics around CAF reporting requirements and to help the FCC in operationalizing broadband roll out throughout USA.

Company History

1984

Telcordia®

Most trusted provider of communications technology and services

January 2012

ERICSSON

Telcordia Acquired by Ericsson

February 2013

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Telcordia's Interconnection and Common Language business is a wholly owned subsidiary of Ericsson Doing Business As (DBA) iconectiv

iconectiv is a neutral, trusted 3rd party administrator of mission-critical industry directories, technology and services that enable operators, content providers and subscribers to discover, route, connect, interact and manage their operations via proven products such as Number Portability, Device Registry, Telecom Routing Administration, Mobile Id, Mobile Messaging, Common Language and others.

www.iconectiv.com

Common Language® Information Svcs

Common Language Embraces

TeleManagement FORUM

ITU

ETSI

ISO International Organization for Standardization

IETF

atis

ANSI American National Standards Institute

What is Common Language ?

Common Language Information Service is an information infrastructure that allows service providers to manage their internal information need and is designed to enable Service Providers and their trading partners to identify and describe critical network assets in a consistent and meaningful manner.

Interconnection (ASR/LSR)	Regulatory Reporting
Asset Management	Provisioning/Activation
Service Assurance	Procurement/Spares Mgt

Common Language Addresses

- **Data Structure**
- **Dictionary & Syntax**
- **Registry with Publication and distribution**

Equipment CLEI	Location CLLI	Connection CLCI, CLFI, NC/NCI	Service Info USOC, FID
• 450,000 Equip identified • > 1,000 NEPs (~150 active) • > 50 equipment attributes	• > 9 M Locations • > 100K GSA services • > 60 + SP Subscribers	• > 4M Orderable configurations • A multitude of "as-Built" configurations	•34,000 USOCs, 3,000 FIDs and 14,000 FID data elements describe all aspects of the subscribed service

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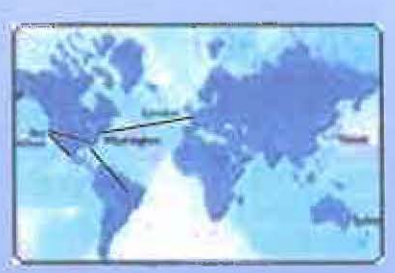
Common Language® Components



Equipment (CLEI)

A single source of network equipment information that enables a Network Operator to achieve efficient equipment management and operations and provides seamless collaboration with their equipment suppliers. The data catalogue has over 450,000 pieces of network equipment across 1,000 equipment manufacturers

Location (CLLI)

A single source of network location information that enables an operator to achieve efficient network operations and provides seamless collaboration with their trading partners. The Locations Registry contains over 7.4 million locations around the world across more than 100 service providers.

Connections (CLFI, CLCI S/S, CLSI MSG, NC/NCI)

A single approach to identifying Connections within your company and with your trading partners providing significant efficiencies to your business. Connections reference data contains key data elements for next generation services offerings.

Services (USOC/FID)

A well defined, managed approach to support service providers in defining all services through a single, flexible framework that can be deployed to provide discipline and efficiency across a single provider's BSS/OSS or even across multiple providers.

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Common Language® in the Industry

- Common Language has been used in the communications industry in North America for over 30 years and is the basis for many ATIS standards. Common Language has been instrumental in providing a common information infrastructure and readily available information registries across the communications industry for wireline, wireless, cable and utility operators, enabling next generation of service offerings
- Several of the Common Language data elements are embedded in the interconnection process (ASR/LSR)
  - There are several fields labeled with Common Language data elements (CLLI, CLFI, NC/NCI, CLCI) that require valid Common Language data to enable a successful interconnection request
- Common Language is instrumental in regulatory reporting and information infrastructure. There are several reports in the industry that rely on Common Language information, such as:
  - Notice of Network Changes
  - Collocation Order
  - Tariffs
  - Study Area Boundaries
  - USF Program Administration
- Tariffs contain Common Language USOCs and NC/NCI information to describe the services offered and mapping them to rates
- FCC receives Common Language information regularly via several sources

CAF Requirements
Comparable Services in Rural and Urban Areas

FCC Requirement (FCC 11-161):

91. For each of these characteristics, we require that funding recipients offer service that is reasonably comparable to comparable services offered in urban areas. That is, the actual download and upload speeds, latency, and usage limits (if any) for service providers' broadband must be reasonably comparable to the typical speeds, latency, and usage limits (if any) of comparable broadband services in urban areas.

Common Language services registry of over 3.2 million service definitions and over 12,000 internet based options exist to support your business offerings

	CLLI™			USOC™, CLFI™, CLCI™		
	State FIPS Code	County FIPS	Census Tract	Resident Address	Upload Rate code	Download Rate code	Technology Code
	6	67	0009.00	22 maple ave, new brunswick, nj 08854	3.00	5.00	2
	6	67	0009.00	8675 N Oak st, new brunswick, nj 08854	2.00	4.00	2
	6	67	0009.00	8675 N fern pl, new brunswick, nj 08854	3.00	4.00	2
	6	67	0009.00	8675 N birch st, new brunswick, nj 08854	3.00	5.00	2
Average	6	67	0009.00		2.75	4.50	

CAF Requirements
Speed and Latency Requirements

FCC Requirement (FCC 11-161):

- Specifically, price cap ETCs that receive model-based CAF support will be required, for the first three years they receive support, to offer broadband at actual speeds of at least 4 Mbps downstream and 1 Mbps upstream, with latency suitable for real-time applications, such as VoIP, and with usage capacity reasonably comparable to that available in comparable offerings in urban areas.
- We will require recipients of funding to test their broadband networks for compliance with speed and latency metrics and certify to and report the results to the Universal Service Administrative Company (USAC) on an annual basis.

CLLI™ | **USOC™, FID™, CLFI™, CLCI™**

State FIPS Code	County FIPS	Census Tract	Upload Rate code	Download Rate code	Technology Code	Number of Connections
6	67	0009.00	3	5	2	85
6	67	0009.01	4	5	2	27
6	67	0009.02	3	4	3	42
6	67	0009.03	3	5	5	42

As can be seen in FCC's DA 13-456 "filers should submit data on the **CLLI** codes of the switches in each exchange in a separate .csv file. This file should list each 11-digit **CLLI** code in a study area and the exchange(s)/wire center associated with that **CLLI** code, with a new **CLLI** code or exchange/wire center requiring a new row or record in the table. " CLLI™ codes are a requirement for CAF awardee reporting.

CAF Awardee Challenges

- CAF awardees are mostly smaller rural carriers with less experience in regulatory reporting and interconnection processes
  - They are required to build out the new network as part of CAF by consistently representing the technical requirements in a disciplined way so they can keep track of the infrastructure they are building and the services that sit on the top of them
  - They have to define services and their technical attributes with common information elements. They may lack a common way to define their services to allow compliance with the commission's data collection requirements to enable comparability
  - The awardees often operate in a small, regional footprint. As part of the CAF broadband build out, they may have to go outside their foot print and have to interconnect with other carriers to support CAF requirements. The intricacies of the interconnection process (ASR/LSR) may be new/unfamiliar to them and they may end up having to re-submit orders until they get the required data elements completed correctly.

Next Steps

- Common Language would like to take the next step of exploring the specifics around CAF reporting requirements and to help the FCC in operationalizing broadband roll out throughout USA.

- Questions/Discussions?

BACK UP

Terminology

Code	Description
ASR/LSR	The Access or Local service requests (ASR/LSR) and standardized process supporting interconnection between customers and providers. Examples are Ethernet, PSTN, IP or Telephone Number Porting, Directory Services, etc....
CLLI	An eleven-character alphanumeric descriptor used to identify locations and the related functions such as switches, points of interconnection, and other various categories of communications network elements.
CLEI	A globally unique identifier for communications equipment with a uniform feature-oriented classification. CLEI codes must be acquired by communications equipment manufacturers and assigned to devices before they are sold to a licensed service provider.
CLFI	Code provides a standard, mnemonic naming scheme to uniquely identify cable and transmission facilities between two standardized locations (identified via CLLI codes) within a network.
CLCI MSG	Code provides a standard naming scheme to uniquely identify message trunk circuits.
CLCI S/S	Code provides a coded designation for a service that is dedicated to a particular customer
NC/NCI	Network Chanel/Network Channel Interface or NC/NCI codes are used to communicate technical attributes of services, facilities and their associated interfaces to support interconnections between communications service providers via the ASR/LSR process.
USOC	Universal Service Order or USO Codes are used by communications service providers to collect and structure all the information needed for service activation, including ordering, provisioning, service assurance and billing. USOC codes, also known as rate elements, are used by communications service providers to identify each billable element of a customer's service.
FID	Field Identifiers or FIDs are used by communications service providers to identify a billing preference or attribute of a customer's account. FIDs define the technical parameters required to provision and bill a customer's service beyond those described in USOCs

Example 1: Notice of Network Changes (1)

- CFR, Title 47, Sections 51.325 – 51.335
  - § 51.327 Notice of network changes: Content of notice
  - Notice-of-network-change rules that require ILECs to provide notice to other carriers and the commission before making certain "short-term" network changes
  - Section 51.327(a) outlines the content requirements of the Notice of Network Changes, which includes "(4) The location(s) at which the changes will occur".

- After receiving the Notices, the FCC formats this information into standard templates, sometimes removing location information and then distributes it through their publication process.
  - Reference: http://www.fcc.gov/encyclopedia/section-251-wireline-network-changes

Common Language location and address information and CLLI codes are embedded in Notice of Network Changes

Example 1:
Notice of Network Changes (2)

Verizon
600 Hidden Ridge
Irving, TX 75015-2092

PUBLIC NOTICE OF NETWORK CHANGE UNDER RULE 51.329(a)

December 3, 2012

Carrier: Verizon New York Inc., 140 West Street, NY, NY 10007

Contact: For additional information on these planned network changes, please contact:

Harvey Salzberg
MNE - NYS TCM/SW-TAND/VOIP
140 West Street, 11 Floor
New York, NY USA 10007
212-766-5821

Andrew Allen
Manager – Multi-Media Network Engineering
Verizon Switch Capacity & Engineering Support
140 West Street, 11 Floor
New York, NY USA 10007
212-766-5628

Implementation Date: No earlier than August 1, 2013

Planned Network Change(s) Will Occur at the Following New York City Location(s):

Location	Verizon Central Office (CLLI Codes)
208 E79th Street (DMS200-VTOA tandem)	NYCMNY79GT0
(LERG Database)	NYCMNY79G0T
221 E37th Street (5ESS tandem)	NYCMNY3723T

CLLI Info

Example 1
Notice of Network Changes - Additional Examples (3)

ACS of Anchorage, Inc.
http://www.alaskacommunications.com/Regulatory-Information.aspx

AT&T Communications
https://ebiznet.att.com/networkreg/

Centurylink Communications
http://www.centurylink.com/wholesale/networkdisclosures.html

Verizon Communications
http://www22.verizon.com/regulatory/reg_ntw_dscl2012.html

Frontier Communications
http://www.frontier.com/wholesale/notifications-and-news

Example 2: Co-location Orders (1)

- CFR, Title 47, Section 51.323(h) requires:
  - § 51.323 Standards for physical collocation and virtual collocation
  - Upon request, an incumbent LEC must submit to the requesting carrier within ten days of the submission of the request a report describing in detail the space that is available for collocation in a particular incumbent LEC premises. This report must specify the amount of collocation space available at each requested premises, the number of collocators, and any modifications in the use of the space since the last report. This report must also include measures that the incumbent LEC is taking to make additional space available for collocation. The incumbent LEC must maintain a publicly available document, posted for viewing on the incumbent LEC's publicly available Internet site, indicating all premises that are full, and must update such a document within ten days of the date at which a premises runs out of physical collocation space.

Common Language location and address information and CLLI codes are embedded in co-location orders

Example 2
Co-location Orders (2)

CenturyLink space exhaustion report:

ST	CLLI	Central Office/WC Name	Existing Collocation	Physical Space Available	Date Space Determined to be Full/Unavailable	Date Submitted for Posting	Estimated Resolution Date
AZ	AGFIAZSR	Sunrise	Yes	Yes			Not Applicable
AZ	ASFKAZMA	Ashfork	No	Yes			Not Applicable
AZ	AZCYAZ03	Arizona City	No	Yes			Not Applicable
AZ	BCKYAZMA	Buckeye	Yes	Yes			Not Applicable
AZ	BISBAZMA	Bisbee	No	Yes			Not Applicable
AZ	BLCNAZMA	Black Canyon City	No	Yes			Not Applicable
AZ	BNSNAZMA	Benson	Yes	Yes			Not Applicable
AZ	BNSNAZSD	Saint David	Yes	No	07/11/11	07/11/11	Not Applicable
AZ	BRDSAZMA	Beardsley	Yes	Yes			Not Applicable
AZ	CHNDAZMA	Chandler Main	Yes	Yes			Not Applicable
AZ	CHNDAZRS	Chandler Galvesto	No	Yes			Not Applicable
AZ	CHNDAZSL	Chandler Ocotillo	No	Yes			Not Applicable
AZ	CHNDAZSO	Chandler South	Yes	Yes			Not Applicable

CLLI Info

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Example 2
Co-location Orders – Additional Examples (3)

AT&T Communications

- https://clec.att.com/clec/hb/shell.cfm?section=242&hb=185

Qwest Communications

- Website: http://qwest.centurylink.com/wholesale/colloForm.html
- Available Space (CO and outside plant locations) Reports: http://www.centurylink.com/wholesale/notices/collo/spaceAvail.html

Verizon Communications

- Website: http://www22.verizon.com/wholesale/local/collocation/detail/physical-collocation-space-exhaust-list.html

FairPoint Communications

- http://www.fairpoint.com/wholesale/resources/collocation-licensing/

Example 3
Tariffs (1)

- CFR, Title 47, Section 61 outlines requirements concerning issuance of a Telecommunication tariffs, content, font size, however specific content, sections and examples are not found
- Once tariffs are completed, they are filed on the company websites, with the FCC (for federal tariffs) as well as with the PUC (for local tariffs).
  - FCC Website: http://gullfoss2.fcc.gov/prod/ccb/etfs/
  - PUC Website: individual state sites.
- Over time, companies have looked to copy the tariffs of a dominant (incumbent) carrier and modify to support the services offered. The FCC cites the Pricing Policy Division to provide guidance.

Common Language location and address information, CLLI codes, USOC/FID codes and NC/NCI codes are embedded in tariffs

Example 3
Tariffs (2)

AMERITECH OPERATING COMPANIES

TARIFF F.C.C. NO. 2
27th Revised Page 310
Cancels 26th Revised Page 310

7. Special Access Service (Cont'd)

7.5 Rates and Charges

Rates are subject to subsequent adjustment, effective retroactively in light of USTA v. FCC, (Case No. 97-1469) (slip. op. May 21, 1999) (D.C. Cir.), or pursuant to pending motions or petitions or any other adjustment pursuant to a Commission or court order.

7.5.1 **Metallic Service**

	USOC	Monthly Rate	Nonrecurring Charge
(A) Local Distribution Channel - Per point of termination - All states	TNUG2	$17.90(I)	
(B) Channel Mileage Termination - Per point of mileage termination - All states	CM6	None	
(C) Channel Mileage* - Per mile - All states	1L5XX	9.46(I)	
(D) Optional Features and Functions	USOC	Monthly Rate	Nonrecurring Charge
(1) Bridging			
(a)Three Premises Bridging - Per Port - All states	BCNM3	$4.21(I)	None
(b) Series Bridging - Per Port - All states	BCNMS	2.68(I)	None

USOC Info

Example 3
Tariffs: Additional Examples (3)

ACS of Anchorage, Inc.

- http://www.alaskacommunications.com/Regulatory-Information/Local-Tariffs.aspx

AT&T Communications

- http://cpr.att.com/

Qwest Communications

- http://www.centurylink.com/Pages/AboutUs/Legal/Tariffs/displayTariffLandingPage.html

Verizon Communications

http://www22.verizon.com/tariffs/

Frontier Communications

http://carrier.frontiercorp.com/crtf/tariffs/

FairPoint Communications

http://tariffs.net/fairpoint/tier.asp?cid=1644

Example 4
Study Area Boundaries (1)

- As adopted within the USF/ICC Transformation Order (FCC-11-161), and further clarified in the Order on Reconsideration (DA-13-282), the FCC is collecting data on the study area boundaries of all incumbent local exchange carriers to use in the implementation of certain universal service reforms and transformation programs.
- The Commission requires information regarding the Exchange Boundary and Wire Center Boundaries data be provided. This information will be utilized to map Study Area boundaries to Exchanges to Switches.
  - http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0226/DA-13-282A1.pdf
  - Templates: http://www.fcc.gov/encyclopedia/study-area-boundary-data-collection

Common Language location and address information and CLLI codes are embedded in study area boundaries

Example 4
Study Area Boundaries (2)

- http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0226/DA-13-282A1.pdf

1. OCN – NECA-assigned operating company number as in the LERG
2. Company Name
3. Boundary Type – Exchange, Wire Center, or Outer Study Area
4. Exchange Name[3]
5. Wire Center Name (leave blank if submitting exchange-level data)
6. Was the Exchange acquired subject to section 54.305 of the Commission's rules?[4]
7. Study Area Code (6-digit)
8. State

C. have an assigned projection w/accompanying .prj file
D. use unprojected (geographic) WGS84 geographic coordinate system
E. conforming to 1:24K national mapping standards or have a minimum horizontal accuracy of +/- 40 feet or less
F. be submitted as a WinZip archive with a name containing the company name and study area code (e.g., CompanyName_123456.zip).

CLLI Info

III. CLLI Codes

In conjunction with the shapefile attributes listed above, incumbent LECs or state entities should submit, within the zip file, a .csv file listing all of the 11-digit CLLI codes (for switches) associated with each exchange or wire center boundary. Because multiple CLLI codes can be associated with an exchange, it is easiest to capture these data in a separate table rather than include them in the shapefile attributes listed above. The .csv file should contain the three fields listed below, and each CLLI code should be listed in a separate row. This is a .csv file only; the locations of the switches associated with the CLLI codes do not need to be mapped.

1. Boundary Type – Exchange, Wire Center, or Outer Study Area
2. Exchange or Wire Center Name
3. CLLI Code (11-digit)

Example 5
USF Program Administration (1)

- The USF framework was established with the Telecommunication Act of 1996 and with Universal Service Administrative Company (USAC) as the administrator. USAC interfaces with the companies who receive funding reimbursements as a part of allowable expenses for High Cost, Low Income, Schools and Libraries, and Rural Health Care Programs.

- As a part of the USF/ICC Transformation Order, the High Cost Program is transitioning to the Connect America Fund. Administration remains with USAC who has recently coordinated with the FCC the 2013 updates to the reimbursement forms and search tools.
  - http://www.usac.org/hc/tools/forms.aspx
  - http://www.usac.org/hc/tools/default.aspx
  - http://www.universalservice.org/hc/tools/clli/default.aspx

Common Language location and address information and CLLI codes are embedded in USF program administration

Example 5
USF Program Administration (2)

- CLLI codes are readily available as result of queries or search criteria

USAC
Universal Service Administrative Company

HIGH COST

USAC Home | High Cost Program | Search Tools | High Cost Model CLLI Search Tool

HIGH COST MODEL CLLI SEARCH

STATE	STUDY AREA CODE	ILEC	WIRE CENTER CLLI	WIRE CENTER NAME
CA	542334	ROSEVILLE TELE. CO.	CTHTCAXF	CITRUS HEIGHTS
CA	542334	ROSEVILLE TELE. CO.	RSVLCAXF	ROSEVILLE
CA	545170	SBC	ACTNCA11	ACTON
CA	545170	SBC	AGDLCA11	AGUA DULCE
CA	545170	SBC	AGORCA11	AGOURA
CA	545170	SBC	ALBYCA11	ALBANY
CA	545170	SBC	ALGHCA11	ALLEGHANY
CA	545170	SBC	ALHBCA01	ALHAMBRA
CA	545170	SBC	ALMDCA11	ALAMEDA
CA	545170	SBC	ALPICA12	ALPINE
CA	545170	SBC	ANCMCA01	ANGELS CAMP
CA	545170	SBC	ANGWCA11	ANGWIN
CA	545170	SBC	ANHMCA01	ANAHEIM
CA	545170	SBC	ANHMCA11	ANAHEIM

CLLI Info