USE CASE

TruOps Common Language for the Broadband Equity, Access, and Deployment (BEAD) Program

Optimize regulatory compliance and network buildouts to bridge the digital divide. Industry-standard framework streamlines collecting, verifying and sharing information for BEAD-funded projects

challenges

- The $42.45 billion BEAD program requires NTIA, state broadband offices and subgrantees to track spending and buildouts to bridge the digital divide.
- States and subgrantees face complex reporting requirements that are time-consuming and prone to inconsistencies.
- Lack of standardization leads to data inconsistencies, making analysis and audits difficult.
- Limited real-time tracking hampers project oversight and resource allocation.
- Disparate reporting systems create coordination challenges, causing inefficiencies and delays.

solution

- TruOps Common Language and its Central Location Online Entry System (CLONES) database can empower the NTIA, states and subgrantees to accurately track fund usage and help ensure compliance with regulatory requirements.
- Common Language CLLI Codes identify and classify the location and other key attributes of every piece of infrastructure, helping to track the location of every piece of equipment and communications function provided at each network site.
- Common Language CLFI Codes standardize the naming and tracking of transmission facilities, helping to ensure accurate documentation of network infrastructure.

results

- Streamline audits and other processes required for BEAD program compliance.
- Maximize BEAD's impact by ensuring that every dollar is spent exactly where it will provide most benefit to consumers, businesses, schools and other users that currently lack broadband service.

challenge: ensuring compliance with BEAD reporting requirements

Under the Broadband Equity, Access and Deployment (BEAD) Program's rules, each Eligible Entity must be capable of "demonstrating how it expects to satisfy the subgrantee monitoring and management requirements" and provide "sufficient accountability procedures within its program to ensure subgrantee compliance with all applicable Program requirements." Additionally, NTIA will conduct "ongoing monitoring of an Eligible Entity's progress against its plans and ensure that the requirements of the Infrastructure Act are met. Eligible Entities will be required to comply with reporting requirements and monitor subgrantee compliance."

To meet these stringent reporting requirements, the NTIA, states and subgrantees all need access to granular, authoritative, continually updated information about locations, equipment, connections and service functions. This information also needs to be compiled and shared in an industry-standard nomenclature, which is key for avoiding misunderstandings about deployed infrastructure assets in support of the BEAD Program's goal.

By understanding the locations and capabilities of existing network assets, the NTIA, states and subgrantees can gain comprehensive visibility into the telecommunications infrastructure. This enhanced oversight allows for more accurate monitoring of network expansions and upgrades, ensuring that funds are used effectively and projects are progressing as planned. This framework helps the NTIA, states and subgrantees verify that every dollar of BEAD funding is being used to put the right equipment in the right location to extend fiber, wireless broadband—and satellite where it is needed most.

The current reporting guidelines provide room for interpretation about what information to collect and how and when to report the data, which may be detrimental to the achieving the objectives of the program.

solution: authoritative information in an industry-standard framework

To maximize the efficiency and cost-effectiveness of the $42 billion allocated for broadband expansion through the BEAD program, it is important to leverage existing industry standards. Common Language is already widely adopted among stakeholders. This foundational platform streamlines processes and enables consistency across the industry, aligning with the BEAD Program's goal of expanding broadband access.

To optimize resource use in the BEAD Program, implementing a standard, proven process to ensure meticulous reporting, compliance auditing and ongoing monitoring is important. Common Language and the CLONES database can empower the NTIA, states and subgrantees to accurately track fund usage and ensure regulatory compliance.

Common Language serves as a standardized registry for identifying network locations, points of interconnection and network assets. By providing standardized data and enhanced visibility into network infrastructure, Common Language and CLONES ensure accurate and consistent reporting, enabling the NTIA, states and subgrantees to meet BEAD Program requirements efficiently.

Common Language CLLI Codes identify, classify and pinpoint the location and other attributes of network infrastructure such as fiber termination points, multiplexing nodes, fixed wireless access radio base stations and interconnection points. This helps streamline interconnection and minimize errors in network design and provisioning, which, in turn, helps maximize the impact of BEAD Program funding.

Common Language's network view feature lets the NTIA, states and subgrantees see these locations on a map, along with network details, providing comprehensive visibility into infrastructure status across states. This ongoing insight allows the NTIA to track and verify effective use of federal funding, supporting compliance at a national level. At the same time, state broadband offices can leverage this data to oversee fund distribution, manage project progress and help ensure alignment with state-level requirements.

CLFI Codes also play an important role in the precise documentation of transmission facilities, which helps ensure all infrastructure components are fully accounted for and accurately tracked. By mapping the exact paths and interconnections between network points, CLFI Codes support accurate reporting and monitoring of network expansions and upgrades. This offers a transparent view of the entire transmission path, including middle-mile facilities that connect underserved areas to broader networks. By detailing where infrastructure is in place, where gaps exist and how these networks integrate with long-haul and last-mile facilities, CLFI Codes support proper documentation for reporting and compliance auditing.

proposed solution: representation of BEAD Projects using Common Language

Sites

Standardized nomenclature used to identify locations where network infrastructure has been deployed using BEAD funds

CLLI Location Codes

Network Functionality

Extension of the site code nomenclature used to identify equipment functionality at a given network site

CLLI Network Entity Codes

Connectivity

Identifiers used to provide an accurate representation of the facilities (e.g., fiber), Technology and capacity deployed between network locations

CLFI Facility Codes

results:
streamline compliance and maximize BEAD funding's impact

Common Language provides the industry-standard nomenclature and framework that the communications ecosystem relies on every day to maximize efficiency, competitiveness and profits. CLLI Codes, CLFI Codes, CLONES and network view can simply, seamlessly and securely give the NTIA, states and subgrantees the authoritative information and insights they need to ensure compliance:

Adequate ability to effectively track, monitor and audit:

Consistency in reporting structure, methods, nomenclature and level of detail will enable the proper management of adherence to fund usage.

No need for additional resources:

Leveraging the existing standardized mechanism in place today, the NTIA, state broadband offices and subgrantees will not need to spend program money on the sizeable number of resources that would otherwise be needed to harmonize and aggregate all this data in a coherent and cohesive manner.

Real-time access to information:

Reporting capabilities provide snapshots at any point in time, with the ability to carry out ad-hoc reporting in real time.

Diminished risk of reporting errors:

Eliminates the need to harmonize the data across multiple subgrantees and states, which is both time consuming and error prone.

Value added beyond reporting:

Supports the day-to-day ongoing operational and processes at the subgrantee level by leveraging data from existing processes and systems already used across the telecom industry today.

TruOps Common Language for BEAD

Site Discovery:
123 MAIN DR, ANYTOWN, ST 10001

1 record found
CLLI: **WDZAAB10**

LAT: 35.019444
LON: -115.473555

Date Record Created: 09/27/2019
Status: Active
Site Description: Customer Building, Cell Site
Record Creator: XYZ Telecom

Network Entities: 21

Entity Code	Entity Type	Description	Company (Creator)
00W	DIGITAL PACKET DEVICE	ROUTERS	XYZ Telecom
0AW	DIGITAL PACKET DEVICE	CIENA 3930 10G CSIPA	First Cellular
0CW	DIGITAL PACKET DEVICE	SWITCH, ETHERNET NTE	Gold Wireless
0EW	DIGITAL PACKET DEVICE	ETHERNET NTE CIENA-MI13XC047	Gold Wireless
0FW	DIGITAL PACKET DEVICE	CIENA NTE SFL559	First Cellular
0HW	DIGITAL PACKET DEVICE	SWITCH, ETHERNET NTE	First Cellular
0IW	DIGITAL PACKET DEVICE	CELL SITE	MG Broadband
0JW	DIGITAL PACKET DEVICE	SWITCH, ETHERNET NTE	MG Broadband
CM1	MOBILE/SWITCHING CENTER (MSC)/MOBILE TELEPHONE SWITCHING OFFICE (MTSO)	GOLD WIRELESS SERVICES	XYZ Telecom
D00	PROCESSOR/SERVER GROUPING	RET CONTROLLER	TelcoView LLC
FD1	FRAMES	DSX-1 RR 01 LINEUP	XYZ Telecom
FD2	FRAMES	LCIE RR 1 LINEUP	XYZ Telecom
HA0	MISCELLANEOUS NONSWITCHING ENTITY	COLOCATION / CAGE	XYZ Telecom
Q01	RADIO ACCESS NETWORK EQUIPMENT	CELL SITE EQUIPMENT	First Cellular
Q02	RADIO ACCESS NETWORK EQUIPMENT	BASE STATION	Gold Wireless
WAA	FACILITY/CIRCUIT POINT OF INTERFACE (POI)	HICAP SPECIAL ACTL/SC-023 (PFM)	XYZ Telecom
O00	MISCELLANEOUS OPTICAL EQUIPMENT	FUJITSU 8300 I-TEMP REMOTE MUX #1	TelcoView LLC

* All entries shown use fictitious data and are for illustration purposes only.

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