USE CASE

TruOps Common Language

Supporting Fast, Efficient 5G Rollouts So Your telecom Customers Can Grow Their Mobile Market Share

Industry-standard nomenclature for identifying locations and information about the capabilities of various towers helps simplify network planning and activation for service providers — making tower companies uniquely positioned to help their customers accelerate new technology rollouts simply, seamlessly and securely.

Challenges

Maximize revenue from data center and fiber backhaul investments

Solidify and expand your value proposition with telecom service provider customers

Ensure your customers have a clear and accurate understanding of each site's capabilities and locations

Support your customer's new tech rollouts (like 5G) and service activation

Solution

Leverage industry-standard nomenclature to identify, classify and understand key attributes of every piece of infrastructure and location

Align internal processes to maximize the value of existing TruOps® Common Language® CLLI™ Codes that exist for your towers

Results

Efficiently provide site information to existing and prospective tenants using their preferred nomenclature

Verify and augment site information to enhance accuracy and overall value proposition for customer retention and acquisition

Increase customer stickiness by supporting customers' value-added service activations and new technology rollouts

Challenge: 5G Network Buildouts and Value-Added Services Adoption

As a tower company, service providers depend on you for building out their 5G networks quickly while seamlessly supporting new service activations.
If your portfolio also includes data centers and fiber backhaul, then you're in a great position to help them accelerate their technology and service activations.

What could derail those business opportunities? Information that's inaccurate or provided in a format that service providers, network equipment vendors and the rest of the telecom ecosystem don't use — or both.

Service providers need to build out their 5G networks quickly and efficiently manage new service activations. Having authoritative, independently verified information about each site simplifies their network planning and implementation efforts. You can streamline that process for them by leveraging existing industry-standard location nomenclature.

In doing so, you can further cement your value as a trusted partner to telecom service providers, which ultimately drives your customer retention and acquisition efforts.

When comparing potential sites, service providers need key details such as latitude-longitude coordinates and the network functionality registered at that site to help with interconnection/backhaul network planning tasks. If that information is outdated or inaccurate, and it turns out that a selected site can't meet its requirements, the service provider could have its buildout delayed by months — and take its business to another tower company. Further, service providers might not even know that a specific site exists at all if they don't have visibility into it via the CLLI Code. As a result, they may do their network planning without using your site, which would impact your business by missing out on an opportunity to serve your customers.

Finally, remember that you have a vested interest in making life easy for service providers. The value of all this information is much less useful if it isn't presented in the industry-standard format that service providers already use. The site market is highly competitive and showing you understand the nuances of how your service provider customers operate gives you a major advantage over those that don't.

Solution:
Authoritative Information in an Industry-Standard Framework

For over 40 years, service providers, equipment vendors and other telecom ecosystem members have relied on TruOps Common Language CLLI Codes to identify, classify and understand the location and other attributes of every piece of infrastructure. The ATIS-Industry Numbering Committee (INC) guidelines require that CLLI Codes be provided by Service Providers to obtain numbering resource assignments from the North American Numbering Plan Administrator (NANPA).

The Common Language framework includes an industry-standard nomenclature that enables you to speak the same language as service providers. That helps avoid misunderstandings about a particular site's capabilities, which helps service providers quickly build out sides, capture market share and drive a return on their hefty 5G investments.

There are 94 million connections managed each day using Common Language, and it is the only industry registry with more than 15 million registered network locations and millions more of interconnection points, further highlighting its role as the trusted, go-to resource for the telecom industry.

In fact, Common Language is so widely used that many towers and other sites are already assigned a CLLI Code. That's because service providers use CLLI Codes as their naming standard to interconnect with others and achieve operational and capital efficiency. So when a site uses Common Language Codes, service providers can use CLLI Codes rather than maintain and track two separate databases.

TruOps Common Language for Tower Providers

Site Discovery:
123 MAIN DR, ANYTOWN, ST 10001

1 record found
CLLI: **ZYXWUTS01**

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.

CLLI Code Location and Entity Registration

CLLI Codes are geographic identifiers that uniquely specify the location of sites within a network

Locations Registry is a single source of network location information that enables operators to achieve efficient network operations and provides seamless collaboration with their trading partners

Network Site is an existing location where one or more network functions exist

Network Entity refers to any functional category of telecommunications equipment at a network site

ZYXWVU + **TS** + **R01**

Geocode **Site Code** **Entity**

ZYXWVUTSR01

Entity types at a site (This is a small subset)

- End Office Digital Switching Systems
- Tandem Office Switch
- Digital Packet Device (e.g., Router, Packet Sw)
- Optical Switch
- Point of Interface (POI)
- Mobile Switching Center
- Gateway (e.g., access, signaling)
- Software Cross-Connectable Units (e.g., DCS)
- Frames
- Radio Base Station (BSC)
- Session Border Controller
- PON Optical Line Terminal
- Repeaters/Regenerators
- Customer Premises Equipment

Results:
Become a Trusted Partner That Adds Value

Common Language gives tower companies the industry-standard nomenclature and framework that they need to efficiently provide site information to existing and prospective tenants and be trusted partners to service providers as they roll out their 5G networks. You can also use Common Language to verify and augment site information in your proprietary internal databases.

Additionally, Common Language makes it easier for you to provide value-added services such as fiber back-haul and data center capabilities. For example, in North America, carrier interconnection is enabled through the Access Service Request (ASR), which relies on Common Language to specify relevant network sites and the technical attributes of the services to be established. The scope of services and products supported by the ASR continues to evolve in order to address new business models and network technology advancements. This, in turn, will provide the necessary support to infrastructure companies as they become key enablers and interconnection partners in the 5G environment.

As new technology rollouts like 5G continue to be priorities for service providers, Common Language puts you in a unique position to help your telecom service provider customers stay competitive now and in the future. One thing that is certain is that the telecom industry is always evolving, so access to usable site information will continue to be core to making these innovations possible.

Find out how TNS can help you with a wide range of telecom solutions:

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