revenue and differentiation for tower, data center operators

maximize assets to drive revenue, competitiveness in mobile market

"Location, location, location" is an old real estate adage that sums up how a desirable spot maximizes value. It's not limited to homes and commercial properties, either. The right location is equally important for communication service providers (CSPs) when they're building out and upgrading their mobile networks and launching new value-added services. That importance is creating major immediate and long-term revenue opportunities for data center operators and commercial real estate owners.

To understand why, consider the history of telecommunications along with some recent trends. CSPs typically owned towers and other network sites until the early 2000s, when they began divesting those portfolios to fund the purchase of new spectrum and network infrastructure. Many of the companies that acquired these facilities for leaseback are real estate investment trusts (REITs) that specialize in telecom. Since then, these companies have played a key role in enabling the rollout of 3G, 4G and now 5G by providing not only sites for communication towers and antennas, but also adjunct services such as fiber backhaul and data centers/telecom hotels.

Location is equally important for fiber and data centers. For example, CSPs increasingly need to connect their base stations to cloud providers to support value-added enterprise applications such as edge computing. Data center operators and commercial real estate firms can provide the fiber and critical interconnection points within the cloud.

Another key marketplace factor is how 5G is being deployed compared to previous technology generations. Although many 5G base stations are deployed at towers and other traditional sites, many more will need new types of locations. By 2025, North America will be home to more than 335,000 5G small cells, which are designed to provide the gigabit speeds necessary for fixed wireless access (FWA) services such as residential broadband. That means over the next few years, CSPs will need access to hundreds of thousands of office buildings, shopping centers, parking garages, apartment complexes and other commercial real estate locations to deploy their small cells.

But many data center operators and commercial real estate companies lack the key to unlocking the full market potential of their sites, fiber and other infrastructure. In other cases, they don't realize that they already have that key and aren't using it to let in potential customers to review their asset portfolio. In fact, unless data center operators and commercial real estate companies use this key, potential customers might not know they even exist.

surprised?

- *What is the key?*

- *Why CSPs and the rest of the telecom ecosystem use it over 47,000 times each day?*

- *How to tell if you have it and how to get it if you don't.*

- *How it can streamline your operations in addition to driving new revenue.*

the telecom ecosystem speaks a common language

The key is iconectiv® TruOps™ Common Language®, the industry-standard nomenclature and framework that CSPs, network element providers (NEPs) and other communications ecosystem members rely on to verify, correct and augment information about the towers and other network sites that they own, operate or manage. Common Language provides a standardized naming system that spans multiple code sets. This system is used to identify network locations, points of interconnection and network assets. It establishes a unified naming system for locations, equipment, connections and service functions, offering a consistent view of network functions throughout internal and external business operations and supported by geographic information system (GIS) information.

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the telecom ecosystem speaks a common language

For example, CSPs use Common Language CLLI™ Codes to identify, classify and understand the location and attributes of network infrastructure such as towers, poles, routers and points of presence. CLLI Codes help CSPs streamline interconnection with their peers, maximize efficiency and minimize errors in network design and provisioning. Over 1,800 CSPs and other businesses use the Common Language Central Location Online Entry System (CLONES) database that houses all valid CLLI Codes, covering over 5 million U.S. sites representing more than 10 million network entities.

CSPs need accurate information to make informed site-selection decisions quickly. CLLI Codes enable them to build out their 5G networks or complete service activations rapidly and efficiently to capture market share and drive returns on their spectrum and infrastructure investments. CLLI Codes also eliminate problems that occur when data center operators, REITs and other types of tower and site companies provide incomplete or incorrect information or use a nonstandard format.

Common Language averages over 47,000 transactions each day, many of which involve infrastructure that data center operators and real estate companies own — even if they don't realize it. That's because the original owner used Common Language to register detail information about these assets. The companies that acquired CSP tower or site portfolios for leaseback over the past two decades are often unaware that this information remains in the Common Language database and is still used today. But unless they have a Common Language subscription, they're not taking full advantage of CLLI Codes because they have no way to verify that their sites are listed in the database.

CLLI Codes

11-character, standardized, identifier that identifies the geographic location of places and certain functional categories of equipment unique to the telecommunications industry

Facilitate rapid and accurate communication of points of interface for interconnection

Identify the precise location of assets for regulatory and operational reason

build awareness, market share and revenue

By ensuring that all of their sites and other infrastructure leverage Common Language, data center operators and real estate companies can:

Raise Visibility Among CSPs

As the industry's authoritative database, Common Language is the resource that CSPs turn to first when looking for new sites, fiber and data centers to install network equipment and fiber. That means the companies using it have a competitive advantage over those that don't. When a CSP finds the infrastructure that meets its requirements, there's not much reason to look outside what is found within Common Language CLONES.

Improved Interworking Enablement

Access to the CLONES database can provide better visibility and understanding of the CSPs' functionality deployed at a given existing data center location. This should help to plan how to become even better enablers of interworking for this sector in the industry.

Site Selection Support

The use of CLLI Code attributes such as carrier presence, availability of certain network functionality and others can help to filter and prioritize new locations for development. CLLI Code data can be used in conjunction with other information sources to enhance the site selection process and outcomes.

A new Common Language feature, network view, is an interactive digital map where CSPs simply enter location information such as a street address to see all of the telecom functionality that has been recorded for a given site. Network view streamlines network planning, routing, interconnection, service activations and new technology rollouts by displaying carrier presence and network entities associated with that site. This eliminates the process of manually matching specific location data to a map. It also provides greater awareness of collocation opportunities by providing a visual representation of CLLI Code data. With concise and meaningful information attributed across the network, everyone across the company understands where equipment is located and where connections are being made.

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case study:
why a tower and data center
chose common language

A large company that owns towers, rooftop sites, data centers and fiber hubs had little information about the functionality of equipment that CSP tenants were deploying at its sites. This limited visibility undermined its ability to meet prospective tenants' business and technology requirements, and, in turn, constrained its revenue opportunities.

The company hired a veteran telecom executive, who recommended Common Language to overcome these challenges. The company supplied iconectiv with a sample list of 10 towers that it currently manages. iconectiv then used the CLONES database — the global repository for CLLI Codes — to provide the information associated with each of those sites. The following infographic is an example of one set of site information, which has been altered to protect the identity of the company.

After reviewing the CLLI Code information about its 10 sites, the company recognized that Common Language would make its tower assets visible to CSPs when they are planning network coverage.

Being registered in the system provided the company's prospects and customers with an easy method to search and locate sites. The industry-standard descriptions and accurate representations also enabled CSPs, fiber and backhaul providers to understand each potential site's key characteristics quickly, accurately and confidently.
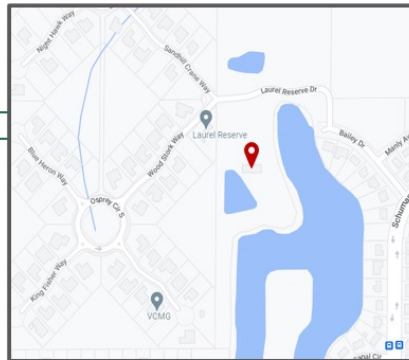
Site Discovery:
123 MAIN DR, ANYTOWN, ST 10001

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.

capitalize on emerging 5g and 6g trends

In addition to capitalizing on immediate market trends and opportunities, tower and data center companies use Common Language to prepare for emerging trends in 5G through the end of the decade, as well as 6G.

One example is the emerging neutral host market, where a third party builds and operates a single mobile network that multiple CSPs use to serve their customers, such as in malls and airports. This business model helps CSPs expand their coverage faster, which is one reason why the global neutral host market is on track to be worth $8.7 billion by 2027.

Another example is the virtualization and disaggregation trend, which lets CSPs run their core and radio access network (RAN) functions as software on commercial off-the-shelf (COTS) servers and other IT hardware. This creates opportunities for third parties to host CSPs' COTS IT equipment in their data centers or telecom hotels.

Like the neutral host trend, virtualization and disaggregation will grow as 5G technology evolves and as the 5G marketplace evolves. Both trends are expected to accelerate with the introduction of 6G, which is expected to make its commercial debut by the end of this decade.

One thing that won't change is the value that Common Language provides. For example, 5G standards have latency requirements that determine how far a data center can be from each site that it serves. As a result, when comparing data centers to host their core and RAN infrastructure, CSPs need detailed, up-to-date information about the assets available at each site, such as fiber routes, switches and routers.

To capitalize on the neutral host market in 5G and eventually 6G, tower and data center companies can upgrade their Common Language subscriptions to include additional types of codes. For example, the Common Language CLEI™ Code is a unique 10-character code designed to help identify vital information and key characteristics of a piece of equipment. Equipment manufacturers physically affix the CLEI Code via a barcode label to each product and packaging before they're sold. It includes the product's size, weight, number of ports, revision level and more. Over 450,000 CLEI Codes have been created and are in use today.

CLEI Codes make it quick and easy for CSPs to see whether a piece of equipment has the characteristics they need to support the operational functionality and network performance in order to deliver high-quality customer services. By supporting CLEI Codes, tower and data center companies as well as neutral hosts show that they understand their CSP customers' unique requirements, giving them more of a competitive edge in the market.

how to get started

A Common Language subscription is a must-have for data center operators and tower/network site companies that are serious about participating in the telecom market. Contact iconectiv at https://www.commonlanguage.com/contact to get more information, including a complimentary site analysis to see the kind of information that is already available about your network sites and infrastructure.

about iconectiv

Your business and your customers need to confidently access and exchange information simply, seamlessly and securely. iconectiv's extensive experience in information services, digital identity and numbering intelligence helps you do just that. In fact, more than 5K customers rely on our data exchange platforms each day to keep their networks, devices and applications connected and 2B consumers and businesses protected. Our cloud-based information as a service network and operations management and numbering solutions span trusted communications, digital identity management and fraud prevention.

make the connection

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