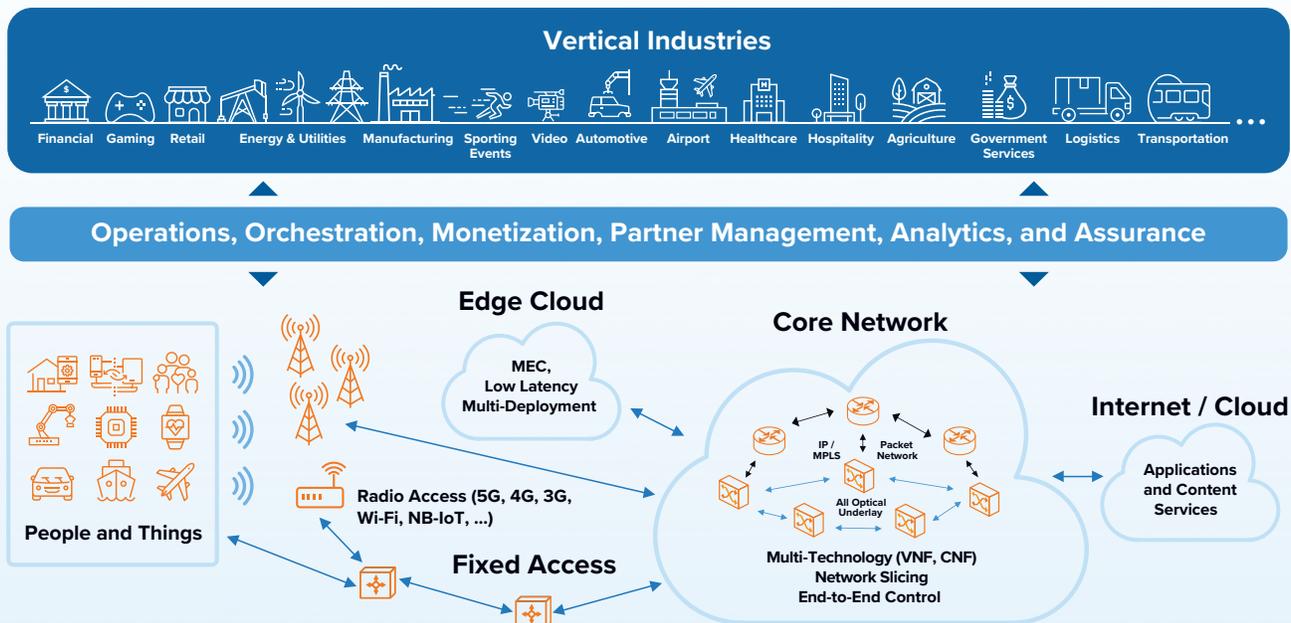




Simplifying 5G Deployments by Leveraging Established Operational Tools

New technology evolution (e.g., network virtualization, private networks, hosted networks, 5G, network slicing, multi-access edge computing [MEC], and the Internet of Things [IoT]) requires assets to be aligned with business and technical objectives. This alignment helps to keep costs with expectations, address end-to-end (E2E) service objectives, support partner accountability, maximize interworking efficiency, and show business management responsibility. Based on its successful long-standing customer implementations and evolutionary approach to the network management processes, a common nomenclature can continue to be leveraged in the evolution and deployment of new facilities-based network ecosystems and the virtual components upon which these technologies rely.

Operational Complexity Increases as Multi-Technology Networks Address Industry Need



Source: IDC, 2021

As network technology and business strategies evolve, asset-based communications service providers (CSPs) face the tough challenge of managing the physical and virtual assets that facilitate the services they provide. Understanding the physical and logical placement of assets is strategic to several internal operations functions including network planning, asset accounting, inventory, service orchestration, catalog, activation, network assurance, service-level agreements (SLAs), policy, rating, and charging. The multilevel construct of the underlay and overlay connectivity infrastructure and the E2E partner-aided services to customers of all types brings additional layers of asset tracking complexity that must be addressed by each of these business and operations management domains.

Why 5G, Virtualized Network Functions, and MEC Are Operationally Challenging

5G brings flexibility and change in the form of alternative business models, dynamic network configurations, complex pricing strategies (B2B, B2B2X), evolved care functions, creative payment options, and a dedicated focus on the customer experience. Within this realm, all change points back to a secure network environment, one that is customer centric by design and delivers services that can be guaranteed E2E. In addition, customers are charged on a market acceptable real-time basis, and contributing partners are accurately compensated according to contract commitments. Most importantly, the inner workings of all network resource functions need guidance through the right business processes via properly vetted identification.

Changes needed for 5G service deployments involve management factors that are advancing through various degrees of maturity. These factors are now combining with advances from 5G network technology to create additional stress on existing systems, thereby requiring evolved ways to satisfy 5G service concerns.

Changes involve management factors:

- ▶ Building out the telco cloud (core ▶ access ▶ near edge) to serve varied industry needs and combining it within a MEC service architecture, where edge is defined by cloud functions and industry needs, e.g., private networks, mobile advertising, IoT, mobile health, real-time patient procedure analysis, drones, gaming, fleet management, augmented reality/virtual reality, collaborative robotics, smart retail, agriculture, and a growing list of others
- ▶ Enacting VNF/CNF/PNF service-level orchestration within the same network resource assignment, including VNF/CNF license management
- ▶ Defining the right degree of SLA commitment aligned with each network slice, e.g., an enterprise connecting two or more business locations in a highly secure manner
- ▶ Establishing partner ecosystems to deliver high customer value, e.g., solutions to problems such as enhanced healthcare procedures or near real-time sports analytics rather than just a network connection
- ▶ Changing the connectivity service construct through B2C, B2B, and B2B2X business models with the associated influences that come from multipartner service arrangements
- ▶ Engaging with multiple business models within the same service offering to dynamically support different schema for real-time charging based on traditional and nontraditional usage factors, initializing real-time assurance tied to various network operations parameters, and revenue collection tied to SLA management

Each of these factors plays a different role in how organizations can define and deploy services. Regardless of time in the business, unambiguous communication of critical information such as locations, VNFs, and equipment assets with interworking partners and between work teams (procurement, operations, supply chain, engineering, and financial) is critically needed. A common nomenclature is essential for addressing these operational concerns and financial tracking requirements. Without a common nomenclature, such as Common Language codes, how will you address the equipment (physical and software) management and regulatory reporting needs of your organization?

Message from the Sponsor

Contact iconectiv to discuss how TruOps Common Language will provide you the industry standard naming convention that supports the unambiguous communication of critical data. For more information on the challenges of new technology management, download the IDC White Paper "Common Language Drives Customer Value for All Network Technology: 5G/MEC and Virtualized Networking."

[Download the IDC White Paper](#)

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