MTN Consulting
Measuring markets

Global Network Infrastructure

Tracking global markets for communications network infrastructure hardware, software & services

Telecommunications network operators (TNOs) continue to face slow revenue growth, rising labor costs, and high network capital expenditures (capex). The cost of powering and maintaining networks are also challenges. To cope, telcos are digitally transforming their operations, restructuring their physical asset base, and learning from the webscale world. Webscale network operators (WNOs) have grown to be among the world's largest companies, and are investing in a range of markets with network needs: connected cars, remote health care, drones and more. WNOs spend big in the cloud, and are pressuring traditional supply chains through their support for open networking, direct work with the ODM/EMS sector, and self-designed chips. A third segment of companies, carrier-neutral network operators (CNNOs) have emerged to help carry and connect a growing portion of the world's network traffic.

In 2017 these three groups of companies employed over 7.7 million people, accounting for $3 trillion in revenues and $400 billion in capex. Their technology spending supports hundreds of vendors across different parts of the value chain. Yet the spending is not stable, or easily predictable. That's especially the case today, as US-China disputes impact supply chains.

MTN Consulting's Global Network Infrastructure (GNI) service provides clients with insightful, timely analysis of technology spending trends (capex and opex) at over 150 network operators across three markets: telecommunications, webscale, and carrier-neutral. For vendors, GNI helps you understand and plan for the needs of your customers, providing a deep view into spending, and hard data on market trends. For network operators, GNI helps you deploy your technology budgets wisely, and learn from other players in the market.

Key Questions

1. Who are the top 150 companies investing in communications networks worldwide? How is their network spending changing over time?
2. How will 5G be deployed, how much will it cost, and what new services will it enable?
3. Who are the important tech suppliers involved in webscale network construction? How do WNOs develop technologies internally & push to market?
4. What role will carrier-neutral network providers play in the 5G market? What new business models are CNNOs pursuing outside telecom?
5. Who are the top 50 vendors to the telecom network operator vertical? How is their market share changing?
6. How will supply chains evolve as politics & security issues alter the US-China relationship?
7. What strategies are telcos adopting to reduce their operating expenses? Which ones are succeeding?
8. How are telecom operators reshaping their workforces, and what is the role of artificial intelligence? Who may benefit from telco AI?
9. Who will be the key players in the connected car market, and what are the main opportunities for network operators?
10. What is the role of edge computing in future networks? How will data center designs change?

Key Deliverables

The foundation of our network operator analysis is a deep, quantitative understanding of the overall market and its key players. Each quarter, GNI clients receive Excel-based reports tracking the TNO, WNO, and CNNO markets. These reports assess financial & strategic developments in each segment, and give near-term guidance on market outlook. For a longer-term view, our GNI service includes an annual market forecast for each of the TNO, CNNO, and WNO segments.

The quarterly tracker & annual forecast provide high-level market analysis, and dig deep into network spending trends and related opportunities for vendors. GNI clients also receive a bi-annual review of vendor market share in the TNO segment.

Other core deliverables include:

- "Webscale Playbooks" – 8 per year, assessing key WNOs (Alibaba, Alphabet, Amazon, Apple, Baidu, Facebook, Microsoft, and Tencent)
- TNO profiles, focused on network spending: 4 per year
- CNNO profiles: 4 per year
- Vendor profiles: 6/year, focused on Asia-based suppliers (e.g. Huawei, Inspur, Murata, Quanta, Wiwynn, and ZTE)
- Technology insights: 4 reports per year, focused on volatility, dislocation, and new opportunities. Tentative topics: connected cars; open networking; IoT security; artificial intelligence.
- Market insights: 4 reports per year, focused on cost-related topics for telcos (labor, content), policy issues (US-China relations), and financial markets (recessions and bubbles)

Companies Analyzed

MTN Consulting's quarterly tracking includes over 100 TNOs, 40 CNNOs, and 30 WNOs. Our vendor market share analysis considers over 150 suppliers from all parts of the food chain. Some of the key companies in each area include:

- **Vendors**: Accenture, Accton, ADTRAN, ADVA, Allied Telesis, Amdocs, ARRIS, Atos Origin, Calix, Capgemini, Casa, Ceragon, CCSCL, Ciena, Cisco, Comba, CommScope, Corning, DASAN Zhone, Datang, DyCom, Ericsson, Fiberhome, Fujikura, Fujitsu, Furukawa, HPE, Huawei, IBM, Infinera, Infosys, Italtel, Juniper Networks, NEC, Nokia, Oracle, Radisys, Radware, Ribbon Communications, SAP, Sopra Steria, TCSL, Wipro, and ZTE
- **Telecom Network Operators:** Altice, America Movil, AT&T, Axiata, BCE, Bharti Airtel, BSNL, BT, CenturyLink, Charter, China Mobile, China Telecom, China Unicom, Chunghwa Telecom, CK Hutchison, Comcast, DT, Etisalat, Frontier, Televisa, KDDI, KT, Liberty, Megafon, MTS, MTNL, NTT, Oi, Orange, Jio, Rogers, Singtel, SKT, Sky, SoftBank, Swisscom, TI, Telefonica, Telekom Malaysia, Telenor, Telia, Telkom Indonesia, Telstra, Telus, True, Turk Telekom, Turkcell, Veon, Verizon, Vodafone.
- **Webscale network operators**: Alibaba, Alphabet, Amazon, Apple, Baidu, Facebook, Microsoft, Tencent; Altaba, Booking Holdings (formerly Priceline), ChinaCache, Cognizant, eBay, Fujitsu, HPE, IBM, JD.COM, LinkedIn, Netflix, Oracle, Qihoo 360, Salesforce.com, SAP, Sina, Snap, Sohu, Twitter, Weibo, Xunlei, Yandex, YY
- **CNNOs**: American Tower, Arqiva, Balitower, Bharti Infratel, Cellnex, China Tower, Chorus, Cogent, CoreSite, Crown Castle, CyrusOne, Digital Realty, EI Towers, Equinix, GTL, Internap, Interxion, IBS, Inwit, Level 3, NBN, QTS, SMN, SBA Communications, STP, Superloop, Telxius/Telefonica, Tower Bersama, Uniti Group, Zayo

A number of companies operate across segments, and this changes over time. For instance, we track HPE, IBM, Oracle, and SAP as both technology vendors (of servers and telecom software, for instance), and as Webscale operators due to their public clouds. Within the network operator space, some operators function across segments or evolve into different segments through M&A. CenturyLink is both a telco and a carrier-neutral provider, for instance, by virtue of its Level 3 acquisition. In this and similar cases, we allocate data across segments proportionately.

Service Levels

- All subscriptions include one-year of access to online library
- We offer two subscription levels: Basic, and Premium.

A customized price quote is available upon request.

- GNI Basic: 3 users, no analyst inquiry.
- GNI Premium: 10 users, 10 hours total of inquiry.

About MTN Consulting

MTN Consulting, LLC is an independent research firm specialized in network infrastructure markets. Our mission is to provide best-in-class market research on network operators. The company was founded in 2017 by Matt Walker, a telecom analyst with 20+ years of industry experience. For more information, see https://www.mtnconsulting.biz/.