



Wireless infrastructure – the 4th public utility

Macro cell towers



- Cell towers are generally the most cost effective and technologically efficient way to provide macro-level coverage.¹
- Utilized primarily in less dense suburban and rural areas.
- Generally deployed with farther-reaching lower-band spectrum, but carrier 5G deployments are now adding mid-band to towers nationwide.
- Tall, generally 100-400 feet, but can be as high as 2,000 feet. These heights allow for best line-of-sight to provide signal propagation.

Small cells and rooftops



- Commonly used in dense urban areas.
- Can be deployed with wide range of spectrum, but generally caters to more mid- and high-band spectrum for 5G deployment.
- Utilized to add bandwidth and speed to carrier networks.
- Lower radius signal propagation requires much greater site count to provide coverage.

StratCap wireless infrastructure outlook¹

- StratCap Investment Management continues to remain positive on the wireless infrastructure sector with a long-term view. We believe the global-macro demand drivers, including increasing numbers of connected devices, growing data consumption per connected device, and ever-rising mobile data traffic, all support the need for existing wireless infrastructure and for future densification.
- Cell towers and other related infrastructure assets benefit from recurring revenues via long-term leases with high-quality tenants, low tenant churn, and are critical to modern communications, resulting in attractive cash flows and relative stability in the asset class. We also believe that nationwide 5G carrier deployments and new entrants into wireless are catalyzing revenue growth and value creation in the near-to mid-term.
- Rising interest rates may flatten out growth in valuation multiples, or reduce valuation multiples in the near-term, particularly as we have observed in more volatile public markets. This may become more likely to trickle down into the private markets if borrowing rates for private equity acquirers continue to climb, which will require increased cash flow thresholds. However, the resiliency of the asset class and other fundamentals mentioned above should help mitigate risk, and we have noted no material movement in valuations in most recent transactions. The market remains very competitive for wireless infrastructure, particularly for domestic macro cell towers.
- Towers appear well positioned to mitigate the effects of inflation. High renewal rates, contractual lease escalations, lease-up revenue growth, low maintenance capex and strong institutional demand all help towers serve as an attractive inflation hedge.
- StratCap continues to deploy significant capital into the sector, favoring private ownership of wireless infrastructure assets, where market inefficiencies can be exploited while experiencing generally lower volatility in valuations.

Fiber, DAS and digital exchange facilities

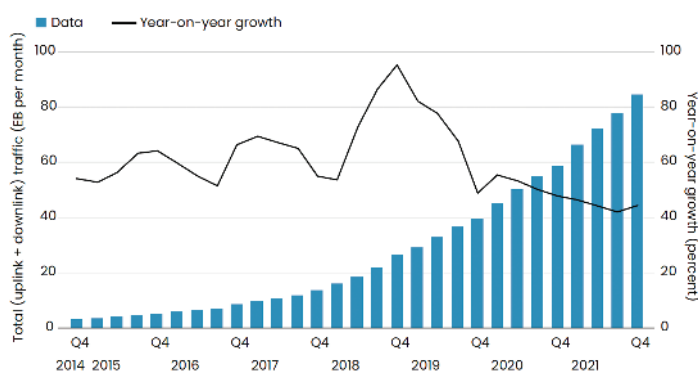


- Fiber connects cell sites, exchange centers and edge computing facilities, helping to deliver high-capacity, bandwidth-intensive applications and data. It is estimated that nearly 1.4 million miles of fiber are needed to provide full 5G service to just the top 25 metros in the U.S.²
- Distributed Antenna Systems (DAS) are generally neutral host platforms that provide coverage in high-density areas or buildings such as sports arenas, office buildings, medical centers, and more.^{3,4}
- Digital exchange facilities and switching centers are hubs that store, process, and deliver voice and data information to their ultimate destination.⁴

Macro demand driver – mobile data traffic growth

- Mobile data traffic growth is a fundamental demand driver for wireless infrastructure. Continued surge in demand supports the need for densification of wireless infrastructure assets such as cell towers, fiber networks, digital exchange facilities and other types of cell sites.⁴
- Over the long term, mobile data traffic growth is driven by both the rising number of mobile device subscriptions and an increasing average data volume per subscription, fueled largely by growth in streaming of video content and other data-hungry applications. The graph below shows total global monthly network data and voice traffic from Q4 2014 to Q4 2021, along with the year-on-year percentage change for mobile network data traffic.^{5,6}
 - » Ericsson forecasts for 2021-2027⁵
 - » 24% CAGR in data traffic per smartphone in North America
 - » 31% CAGR in 5G subscriptions in North America
 - » 26% CAGR in mobile data traffic in North America

Global mobile data traffic (EB per month)⁶



Source: Ericsson traffic measurements (Q4 2021).

Note: Mobile network data traffic also includes traffic generated by fixed wireless access (FWA) services.

Corporate Overview

StratCap is a privately held, global alternative investment management platform committed to providing access to dynamic asset classes and highly experienced investment professionals in order to provide clients with attractive risk-adjusted returns. The company is focused on a wide range of digital economy investments with an emphasis on digital infrastructure, sustainability and technology-centric sectors.

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Cell towers – critical real estate housing the digital economy

- Towers play an increasingly important role in communications
 - » Cell towers house key components of the wireless network to enable communications and data exchange between consumers, businesses, government agencies, first responders and others.
 - » CISA (Cybersecurity & Infrastructure Security Agency), an agency of the U.S. federal government's Department of Homeland Security, identifies the Communications Sector as critical.⁷ This was highlighted during the early stages of the COVID-19 pandemic as tower owners, operators and service providers were generally unaffected.⁴
 - » As highlighted in previous sections, considering cell towers as a form of commercial real estate is well established. A recent Nareit article highlights the following attributes that expand further on this premise.⁸
- Qualitative real estate attributes of towers⁸
 - » Towers are permanent structures affixed to land and supported by a foundation.
 - » The tower construction and development process mirrors that of other types of real estate.
 - » Location is a source of value, with income derived from rents.
 - » Towers have a long history of being treated as real estate for federal income tax purposes.
 - » Appraisal standards consider cell towers to be real estate.
 - » Towers meet FASB implicit tests for what constitutes real estate for revenue recognition purposes.
 - » The two primary industry classification standards include tower REITs as part of the real estate sector.
 - » Dedicated real estate mutual funds and ETFs frequently hold tower REITs in their portfolios.
- Quantitative real estate attributes of towers⁸
 - » The returns of public tower REITs are more highly correlated with returns of most other equity REIT sectors than they are with telecommunication companies or the companies that collectively comprise the S&P 1500 Index.
 - » Tower REIT operational performance, revenues and assets align with the operational performance, revenue and assets of other REITs.
 - » Tower REITs follow real estate financial reporting conventions.

1 American Tower Corp, Investor Presentation, *Introduction to the Tower Industry and American Tower*, December 2021

2 Fiber Broadband Association: *The Road To 5G Is Paved With Fiber*

3 CenterSquare Investment Management; *The Alternative Real Estate Access Series: Exploring Cell Towers* (Oct. 26, 2020)

4 StratCap Investment Management internal research

5 Ericsson Mobility Report, November 2021.

6 Ericsson Mobility Report, Q4 2021 Update

7 CISA.gov, Critical Infrastructure Sectors, Communications Sector

8 REIT.com, Nareit, *Tower REITs, Real Estate Housing the Digital Economy*, December 2021