Shared Communication Tower

Article Overview

Shared communication towers are physical infrastructure platforms that multiple telecom operators use to deploy their network equipment, reducing costs and improving coverage efficiency.

What Are Shared Communication Towers?

A shared communication tower is a structure that hosts the equipment of multiple mobile network operators (MNOs) or wireless service providers on a single site. Instead of each operator building and maintaining its own tower, they co-locate antennas, radios, and other active equipment on a common tower, while the tower owner manages the passive infrastructure such as the steel structure, power supply, and site maintenance . This model is often referred to as tower sharing or co-location.

How Tower Sharing Works

Tower sharing is typically facilitated by Tower Companies (TowerCos) or neutral host providers. These companies:

o Own, build, and maintain the passive infrastructure (towers, land, power, shelters).
o Lease vertical and ground space to multiple operators under long-term agreements.
o Ensure structural safety, power availability, and regulatory compliance.
o Allow operators to install their active equipment (antennas, radios, baseband units) independently . This approach maximizes the utilization of each tower, reduces duplication of infrastructure, and accelerates network deployment, especially in urban, suburban, and rural areas .

Benefits of Shared Towers
o Cost Efficiency: Operators share construction, land acquisition, and maintenance costs, lowering capital and operational expenditures .
o Faster Network Rollout: Co-location allows quicker deployment of new services, including 5G, without building new towers for each operator .
o Environmental Impact: Fewer towers reduce landscape disruption and energy consumption, supporting sustainability goals .
o Market Access: Smaller or new operators can enter the market more easily by leasing space on existing towers .
o Improved Coverage: Shared towers enhance network reach in areas that might otherwise be financially unviable for individual operators .

Examples of Tower Sharing Companies

o Crown Castle: One of the largest providers of shared communications infrastructure in the U.S., offering towers, small cells, and fiber connectivity .
o Shared Tower (Canada): A neutral host provider building a nationwide network of towers, fiber, and edge colocation facilities to support 5G and high-capacity networks .
o American Tower Corporation and Cellnex: Other major players specializing in tower ownership and leasing to multiple operators .

Global Practices

In some countries, regulatory frameworks encourage or mandate tower sharing to improve rural coverage and reduce costs. For example, in France, operators are required to share infrastructure in rural "dead zones" to ensure service availability . Joint ventures like MBNL in the UK also demonstrate collaborative sharing of antennas and network equipment among operators .

Conclusion

Shared communication towers are a strategic solution for efficient, cost-effective, and sustainable network deployment. By separating passive infrastructure management from active network operations, TowerCos enable multiple operators to expand coverage, improve service quality, and accelerate the rollout of advanced technologies like 5G, while minimizing environmental and financial burdens .

1. Introduction to Infrastructure Sharing 1.1 What is Infrastructure? Mobile network operators provide connectivity and

This paper briefly introduces models of passive infrastructure sharing and their advantages,

In the world of telecommunications, tower sharing has emerged as a practical solution to meet the growing demands

Tower sharing is a collaborative approach in telecommunications where multiple network providers share the same

Infrastructure site sharing provides an alternative to exclusive self-building but is that enough? Collaboration with

Explore communication tower technology & infrastructure. Learn about tower types,

Here are five trends in shared mobile infrastructure that are impacting customers as well as providers today and in the

Shared Communication Tower

Tower sharing has implications for both capital and operational costs, as well as for the control and ownership of the asset base.

As an independent owner, operator and investor in wireless connectivity solutions, we are specialists in leasing space on telecom

A cell phone (mobile phone) tower Due to economy of scale property of telecommunication industry, sharing of telecom infrastructure

Telecom towers transmit and receive radio waves to power wireless communication.

Subject: Policy on Shared Communication Tower and Other Telecom Infrastructure to Extend Communication Network in Military

Under the common tower policy, independent towercos will develop shared telco tower infrastructures to expand

In supersession of existing policy for "Provision of Defence land to Communication Operators to construct Shared Communication

Learn what a cell tower is, how it works, and how it keeps your phone connected. Explore

A tower sharing company, often called a TowerCo, is a specialized entity that owns, builds, manages, and leases

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