

WHAT ARE NEUTRAL HOST PRIVATE NETWORKS?

Owners of private network infrastructure may choose to act as a neutral host. This article explores what this means and why enterprises may choose to do this.

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What is a neutral host?

A neutral host is any company who owns telecoms infrastructure and then leases it out to multiple service providers. This infrastructure may include cell towers, fibre, or any real estate in a telecoms network. These are highly beneficial for service providers as it allows them to maintain connectivity and ensure good network coverage without having to build out their own infrastructure. This of course means lower build-out and management costs, as well as a faster way of scaling their coverage.

Examples where we may access these in every day life may include in shopping centres, on public transport networks, or at stadiums. In all of these instances the high density of people and their covered nature mean that it may be hard for mobile connectivity from outside to satisfactorily cover everyone inside. Instead of every mobile operator building their own infrastructure, a neutral host may choose to leverage their infrastructure inside and lease it out to other providers.

Neutral hosts will be leverage wherever there is poor coverage, and it is difficult for every operator to construct their own infrastructure. University campuses, public event venues, and other high density public spaces are common use cases.

Who commonly acts as a neutral host?

Anyone who owns infrastructure has the ability to act as a neutral host. There are some providers who specialise in acting as a neutral host, such as BAI Communications. Increasingly we may also see mobile network operators begin to provide neutral host services as an extra revenue stream. However, with the increase in deployment of private networks, we may also see enterprises beginning to act as a neutral host.

Where do private networks come into it?

A private network is dedicated infrastructure built on a customer site to provide them with private connectivity (you can read more about private networks here). Enterprises across a variety of industry verticals are adopting private networks, including manufacturing, ports, oil & gas, mining and logistics. In these instances, enterprises can act as a neutral host and lease their infrastructure to other providers.

For example, a large manufacturing site may adopt a private network because it is in a remote location, without public mobile coverage. They will have a private network leveraging the spectrum of one mobile operator, which their employees cannot access on their mobile phones unless they are a subscriber to that operator and are given guest access. By operating as a neutral host, all employees can access the private network regardless of which mobile operator they subscribe to, as long as their provider pays to lease the infrastructure from the enterprise. In the US, CBRS means that enterprises do not even need to leverage the spectrum of one mobile operator in the first place, as they can use their own spectrum, this will further increase the revenue opportunity as they lease the infrastructure to all mobile operators.

The benefits to enterprises of doing this are two-fold:

- Their employees can benefit from improved coverage for their personal mobile devices
- They can collect revenue from mobile operators leasing their infrastructure

We increasingly expect enterprises with private networks to adopt this model as private 5G proliferates, this will only be accelerated by CBRS in the US.

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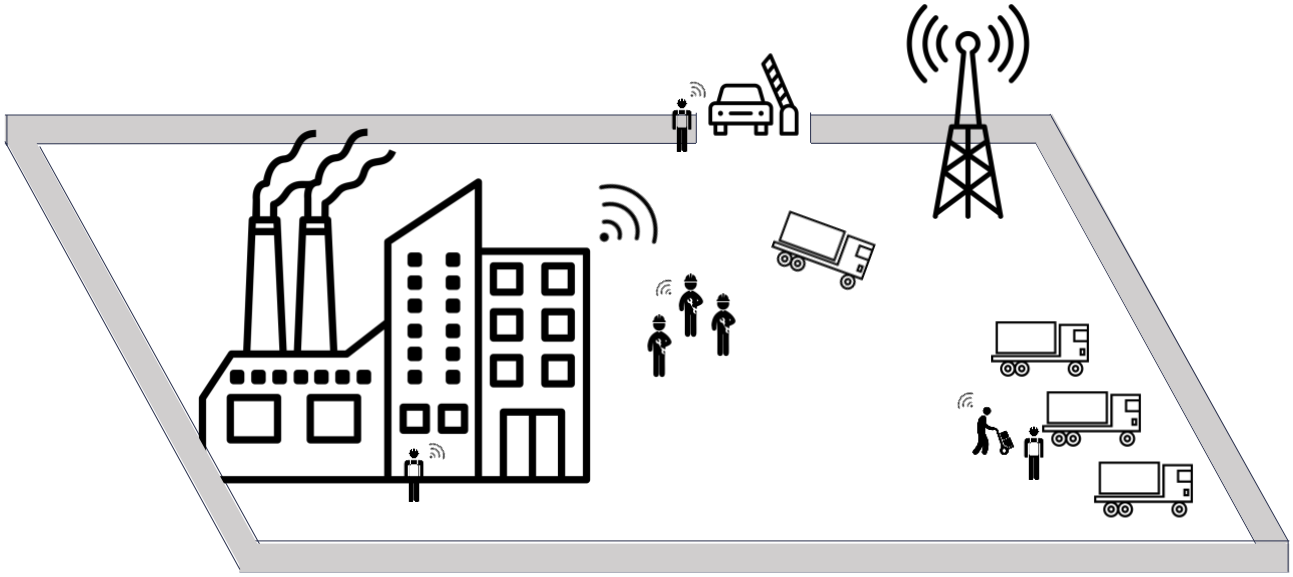
Figure 1: Enterprises may choose to leverage their private network infrastructure to act as neutral host



Source: STL Partners

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