

# Deploy base stations where needed

Only with IP-20 multicore technology

## The challenge

The never-ending proliferation of mobile devices creates a huge increase in the demand for services and capacity. To keep up with such bandwidth hunger, you must switch from planning your 4G/LTE network for achieving the coverage targets, to planning your 4G/LTE network for delivering much more wireless (RAN) capacity. And that means many new cell sites, as well as increasing previously deployed cell sites' capacity.

You need additional sites in specific locations, where backhaul spectrum might be scarce and which may force you to locate sites in sub-optimal locations, decreasing quality of experience (QoE).

As a last resort, you could invest in fiber infrastructure, but it is not operationally efficient and takes a lot of time.

Are you willing to let your QoE suffer due to poor cell site location?

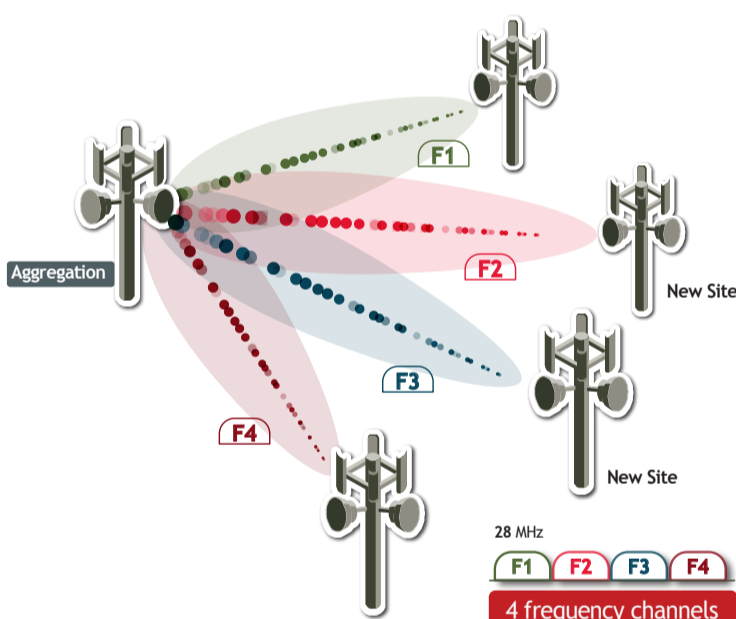
Are you willing to endure a longer time to market because of fiber's time-consuming deployment?

## The IP-20 platform : reuse frequencies, gain more capacity

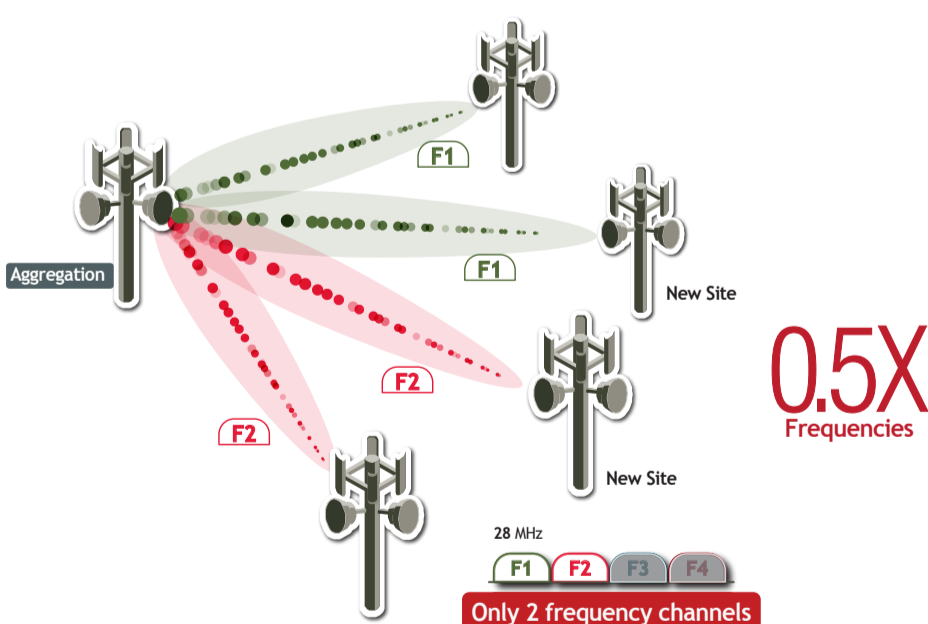
The Ceragon IP-20 platform's advanced frequency reuse (AFR) capability, based on groundbreaking multi-core technology, gives you the freedom to deploy cell sites where and when you need them. With just a click of a button, AFR reuses frequencies and creates wider channels, leveraging existing backhaul frequencies to transport far greater capacities than ever before.

While link interference naturally increases as angular separation decreases, AFR applies a technique to mitigate such interference, enabling low-angle, adjacent links to co-exist, with no fading or quality degradation. Using Ceragon's IP-20 platform, you can decrease angular separation between links using the same frequency from 90°, to as little as 15°. Your subscribers maintain excellent QoE, and your business benefits from better operational efficiency, higher subscriber acquisition and reduced churn.

### Without AFR



### With AFR



## Why Ceragon?

Ceragon's AFR, available only on the IP-20 platform, lets you improve operational efficiency and enhance quality of experience:

- Place your base stations where you need them to provide superb QoE to your subscribers
- Double capacity of existing links: because you're free to reallocate frequencies more efficiently, you can combine two adjacent channels into one, wider channel
- Double network-wide spectral efficiency — total network capacity vs. total frequency used — increasing operational efficiency