



in a blink™

DATA AT YOUR FINGERTIPS

BETTER DATA ...
BETTER DECISIONS ...
BETTER RESULTS ...

CONNECTING MOBILITY
THROUGH
PHOTONICS

FREQUENTLY ASKED QUESTIONS

Q: Why do we need a new wireless technology?

A: As it has been for the last 20 years, wireless transfer capability is always lagging behind the amount of data generated.

The gap is increasing and we're missing out on ways to improve. Data has intrinsic value beyond its current use. With better analytics, data becomes valuable. It is now possible to move data safer and faster than ever before. This is why a new solution is necessary.

Q: How fast is the transfer speed?

A: Up to 2.5 gigabits per second in both directions. That's crazy fast. You could offload an entire day's video data in under 10 minutes.

Q: Why not just go with 5G? It's promising fantastic performance.

A: 5G was designed to increase transfer speed and reduce latency. It is not designed as a backhaul channel for large data transfers. Plus, there is a fee per transaction, and it ends up costing a lot.

Q: This technology requires point-to-point alignment, isn't that a problem?

A: Not at all, there are countless opportunities in every system for a good location to transfer data. Passenger stations, fueling or charging areas at the depot; cleaning, inspection or vault stations are some examples. Also, point-to-point protects the data from cyber-attacks.

Q: Does an operator need to take down their entire Wi-Fi system to accommodate this technology?

A: No. Since we replace equipment gradually with each new vehicle purchase or vehicle refresh, the change is in line with CAPEX programs.

Q: Is there such a thing as too much data?

A: Only if it cannot be transferred and monetized. Data is intrinsically valuable, whether it is a health log file, a video stream, or a passenger count, all data is valuable and helps the operator, the maintainer, or the security team.

Q: What kind of data are we talking about?

A: There are 4 categories of data:

1. Trackside Monitoring.
2. CCTV.
3. Passenger Experience.
4. System Logs.

The first two can generate up to 1 terabyte per week. This far exceeds any existing wireless technology's ability to transfer quickly, safely and reliably.

Q: Can't we just plug in an Ethernet wire into the vehicle?

A: You could, I guess, but let's face it, it's just not at all practical or safe. Our solution is a virtual Ethernet wire that connects the vehicle to the ground.

Q: What about Cyber-Security?

A: Being that it is optical it is not detectable like Wi-Fi. You cannot snoop, hack, extract or inject code into the data stream.

Being infrared and encrypted, the light beam is invisible and confirms the authenticity of any device requesting access.

Q: Will I need a new data center?

A: No. You already purchased a data center, except it is fragmented into all the vehicles in your fleet which makes it unavailable, unsecured, and 10 times more expensive. With a gradual implementation of our system, the mobile data center will become centralized at the OCC over time at lower cost.

Q: What about rain, fog, snow, and dirt?

A: We use infrared light, it is safe for human eyes and is highly resistant to optical interference. Of course, there are limits but those are corner cases and things get back to normal very quickly.