Fastback
NETWORKS

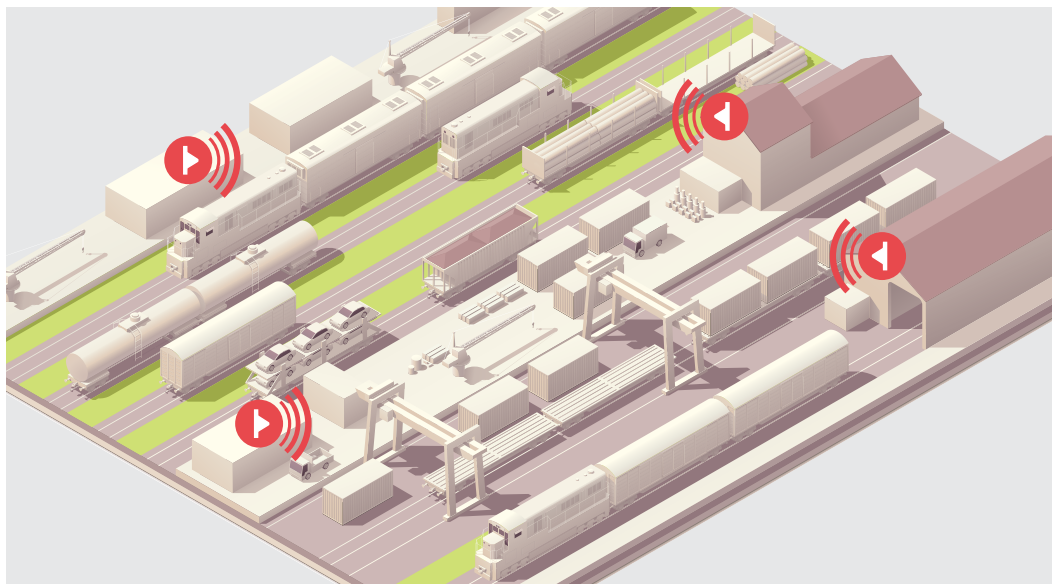*intelligent wireless transport*

TRANSPORTATION

Fastback Wireless Solutions: Transforming Data Access, Monitoring and Security in Transportation & Logistics

From intelligent transportation to improved monitoring and security for infrastructure and facilities, wireless connectivity is as integral to transportation and logistics as highways, railroads, sea lanes and airports. High capacity, wireless Ethernet solutions, the Fastback product family is rewriting the playbook for wireless network performance, economics and effectiveness, providing transportation organizations with:

- The ability to handle any wireless condition, from clear line of sight (LOS) to fully obstructed non line of sight (NLOS)
- Industry-leading capacity, rich feature set, and lowest latency of any wireless Ethernet device
- Unmatched speed and ease of deployment and portability

MORE PLACES

Proven in Tier 1 carrier deployments, Fastback wireless solutions have broad applicability across the transportation industry, including improving connectivity to any location, even those previously deemed inaccessible; monitoring roads, railways, docks and yards; and helping secure assets, cargos and facilities. Organizations are able to deploy a single solution for handling unobstructed Line-of-Sight (LOS), partially obstructed Near-Line-of-Sight (nLOS) and totally obstructed Non-Line-of-Sight (NLOS) links with carrier-grade performance and reliability, indoors or outdoors, and across heavily metallic landscapes, water, and complicated terrains.

Fastback wireless solutions enable a wireless connection of any two locales in any operation conditions.

FASTBACK WIRELESS SOLUTIONS: GOING THE EXTRA MILE IN TRANSPORTATION & LOGISTICS

- *Fastest install:* Up and running within an hour
- *Easiest deployment:* No or low level of manual alignment, LOS studies or frequency planning
- *Versatile prediction tool:* LOS and NLOS site planning
- *Most versatile:* Tolerant to link obstructions; high interference immunity over metallic landscapes
- *Highest Speeds:* Up to 1 Gbps full duplex
- Up to 13km range
- *Lowest latency:* Under 500 μsec
- *Most economical:* Significant time, labor and equipment cost savings
- *Easy expansion and portability:* Deployments scale quickly and economically to any size, while individual units are easily moved to meet changing needs
- *Stringent over air security:* AES-256 and TRANSSEC
- *Choice of interfaces:* Configurable with fiber or copper interfaces (SFP)

MORE SPEED... AND FEWER "BUMPS" IN THE ROAD

The only wireless Ethernet solutions to overcome the traditional barriers to wireless network performance in 5 GHz spectrum, V-band (60GHz), and E-band (70-80GHz), Fastback solutions deliver up to 1 Gbps thruput in Any-Line-of-Sight (AnyLOS™) conditions, coupled with record-setting low latency (<500 μsec). In addition, using patented Fastback technology, the Fastback IBR operates in 5 GHZ unlicensed spectrum without being impacted by the severe levels of interference associated with unlicensed band, thus avoiding capacity constraints and the need for frequency planning. And if new interference is introduced into an environment, the IBR immediately auto-adjusts for that, eliminating the need to manually select new frequencies.

FAST, EASY DEPLOYMENT

Designed for rapid deployment by minimally trained personnel, self-contained Fastback units are installable on fixed or on temporary infrastructure in a matter of minutes, directly out of the box. Leveraging Fastback's integrated auto discovery and synchronization capabilities, units automatically self-align and can be fully operational in less than an hour, regardless of line of sight conditions. Moreover, deployed units stay continuously aligned, so there is need to revisit them to conduct manual realignments.

5GHz Intelligent Backhaul
Radio (IBR)

COMPACT AND FLEXIBLE

Fastback wireless solutions integrate and utilize a variety of   switch, router and native Ethernet capabilities inside a single, ruggedized (IP66), small-footprint enclosure — as small as one square foot in size. In addition to enabling faster installs, this results in fewer managed elements per site, the ability to better deal with space constrictions, and lower capital costs.

The Fastback IBR also empowers transportation organizations with new levels of deployment flexibility. For example:

- With the built-in fiber interface option, IBR is ideal for mounting on remote infrastructure

- Resilience to changing landscape (both over time and immediate), IBR is perfect for depots and for mounting on semi-mobile infrastructure

- An integrated CE2.0 switch for multiple readers/cameras makes IBR ideal for supporting a range of monitoring and surveillance applications

V-band Ethernet
Wireless Bridge

E-band Ethernet
Wireless Bridge

MISSION-CRITICAL TRANSPORTATION APPLICATIONS

Fastback use cases in transportation and logistics cover all transport modes, from truck and rail to maritime and air, and include:

- *Intelligent Transportation* — High capacity connectivity to support a wide range of intelligent transportation programs

- *Monitoring & Security* — Real-time monitoring of infrastructure routes, depots, distribution facilities and terminals, including backhauling high quality surveillance video and high volumes of data from sensors, RFID readers and WiFi devices

- *Asset Management* — Pervasive connectivity for tracking and managing rolling stock and fleet assets, regardless of location

- *Ship to Shore Communications* — Dependable over water connectivity

- *Automated Parking Management* — Curb-side, in-garage and cross-yard data capture from meters, handhelds, cameras and sensors

- *Decision support* — Real-time data collection for business and operational intelligence

Fastback
N E T W O R K S

intelligent wireless transport

2460 North First Street, Suite 200, San Jose, CA 95131 | www.fastbacknetworks.com