IBR Predict™

Fastback NETWORKS®

intelligent wireless transport

Accurately Predict and Plan Your Small Cell LTE Backhaul Network Before You Deploy

### Advanced and Intuitive 3D Network Planning and Prediction Service

The Fastback Intelligent Backhaul Radio™ (IBR) raises the bar for LTE backhaul performance in both LOS and NLOS conditions. To ensure accurate predictions of IBR deployments, Fastback Networks provides the innovative Fastback IBR Predict™, the fast, simple and reliable cloud-based network planning tool for small cell LTE backhaul network design. IBR Predict quickly and accurately predicts backhaul radio performance across Any Line of Sight, including LOS, near LOS to complete NLOS. The combination of simplicity, speed and accuracy enables mobile network operators to:

- Accelerate time-to-design and time-to-deployment
- Accurately predict and select the right locations for backhaul
- Achieve highest throughput and link reliability

Fastback Predict is a turn-key, integrated solution, delivered as a cloud service and powered by SIRADEL Volcano ray tracing technology. Field-proven Volcano ray tracing technology, which has been successfully utilized for RAN planning for over a decade, is now adapted for NLOS backhaul.

IBR Predict Ensures Peak Service Performance

- **Fast:** Determine optimal backhaul radio location in minutes
- **Reliable:** Extremely accurate LOS and NLOS backhaul location and performance (throughput, link quality) planning
- **Simple to Use:** Cloud-based service model, single screen login, intuitive graphical interface for immediate productivity
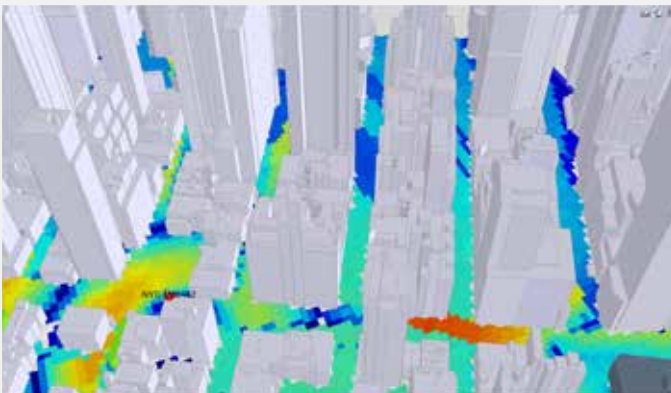
IBR Predict analyzes signal strength to aid in determination of optimal small cell locations to achieve desired coverage.
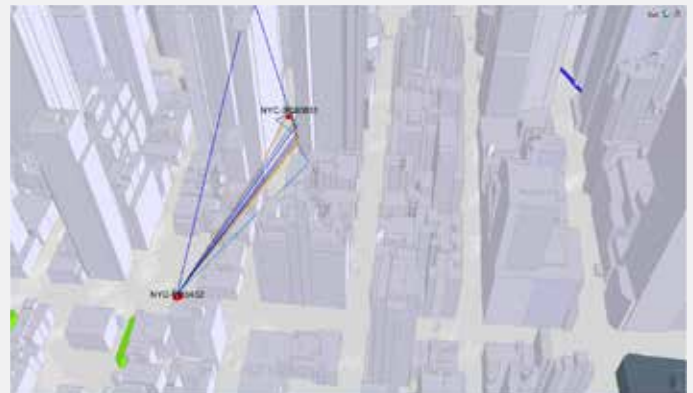
IBR Predict accurately predicts throughput by computing individual ray paths of the planned radio link.

Purpose-Built Cloud Software for LTE Network Optimization

Backhaul network capacity planning is an increasingly complex activity as mobile network operators scale their networks for capacity by placing access nodes wherever required by new service opportunities and customer demand. IBR Predict provides an integrated capacity planning capability suited to today's most pressing LTE backhaul network design needs. It is designed to optimize the location of LTE eNodeBs in the most complex environments including small cell backhaul in dense urban areas, which characteristically pose a full range of line of sight conditions, right up to complete NLOS. IBR Predict is easy to use, and produces rapid results with easily understood insights and predictions. Users access the full predictive power of the cloud-based software via the Fastback support portal, with convenient single screen log-in and around-the-clock availability. And because IBR Predict is cloud-based, network operators are able to scale its use across any number of designers/planners, and are not tied to any specific hardware.

Predict Any Line of Sight Performance with Confidence

IBR Predict delivers maximum accuracy for LOS, NLOS and nLOS path prediction, leveraging 3D GIS data and Siradel Volcano, the market leading 3D path prediction algorithm widely used for dense urban environment RAN planning. Users are able to perform sophisticated and comprehensive backhaul link analysis is just seconds, analyzing azimuth and elevation components, horizontal and vertical polarization, and self-interference and third-party interference to predict IBR radio paths. IBR Predict then delivers high resolution, understand-at-a-glance presentation of predictions and insights.

Plan for Maximum Performance

Optimal backhaul radio installations are a function of maximizing throughput and minimizing latency, for peak LTE network performance. IBR Predict lets network operators and installers visualize and analyze their networks in locations where it has previously been impossible. IBR Predict brings sophisticated and powerful network planning capability to NLOS small cell LTE backhaul.

Three Easy Steps to Prediction

1 Place each end of the link

2 Calculate estimated throughput

3 Optimize for highest capacity and link reliability

About Fastback Networks

Fastback Networks was founded with a vision to deliver innovative technology for the mobile infrastructure of the future, enabling network operators to deliver new services, tap new markets and monetize a new generation of mobile applications. With insights derived from the collective team's vast experience building leading edge radio and data networking solutions, Fastback Networks looked at the challenges of 4G/LTE deployment with fresh eyes and better ideas, and developed a transformational solution that enables the acceleration of next generation mobile services. Fastback Networks is funded by Foundation Capital, Granite Ventures, Harmony Partners, Juniper Networks Junos Innovation Fund, and Matrix Partners.

Fastback
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