



## Access Systemwide Traffic Signal Insights Without Investing in Equipment

**Signal Analytics helps transportation agencies assess and improve traffic signal performance throughout the entire network without the need for costly physical equipment or manual data collection.**

Poorly timed signals impact everything from urban congestion to air pollution to safety. Conventional approaches are either cost prohibitive or don't provide fresh, fast, or reliable insights systemwide. Traditional attempts to qualify and reduce unnecessary delays at intersections typically require the installation of expensive hardware and conducting extensive fieldwork. These efforts usually only cover a fraction of a city's intersections and even worse, they don't paint a complete picture of current issues and trends.

INRIX® Signal Analytics helps transportation professionals better manage systemwide traffic signal performance by working smarter, not harder. The powerful cloud-based application uses anonymous connected vehicle data to assess and help improve signalized intersection and corridor performance. Because the data originates from high frequency GPS waypoints transmitted to the cloud, Signal Analytics is readily available, scalable, and cost-effective.

Agencies can now easily identify, rank, and prioritize intersection signal projects to achieve maximum impact on traffic flow, all without leaving their desks and at a fraction of the cost of conventional hardware equipment.

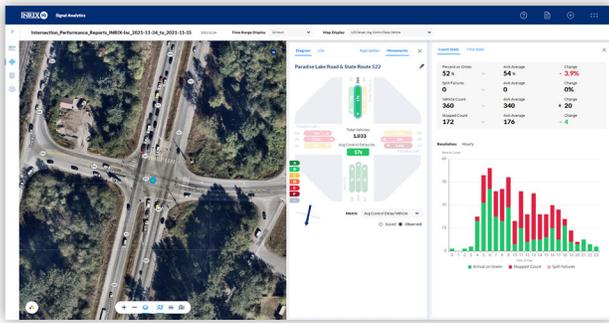
## Key Benefits at a Glance

- Continuously monitor every movement in your network without investing in equipment
- Identify performance issues without ever leaving your desk
- Take proactive actions based on deep analysis and reliable performance trends
- Make cities more livable with better traffic flow, improved air quality, and safer intersections

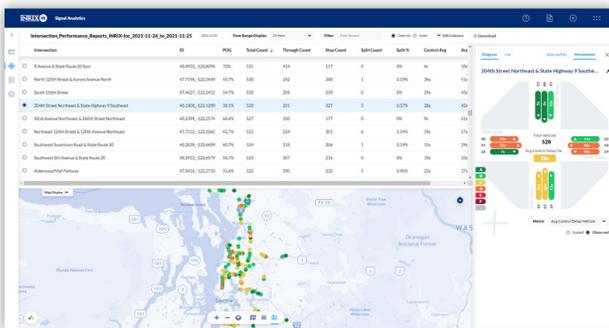
## Use Cases

- Identify where signal retiming needs are most urgent
- Rank intersections by their chosen performance metric to prioritize traffic signal projects most effectively
- Quantify the impact of traffic signal management strategies
- A quick and accurate way to test new signal strategies
- Adopting TSMO strategies for traffic signals
- Understand the reliability and performance of a corridor at various times

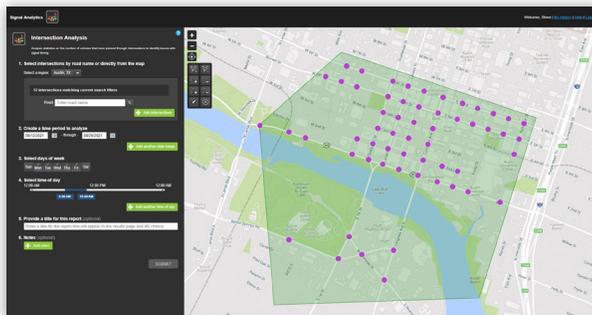
# Make your transportation network as efficient as possible with INRIX Signal Analytics



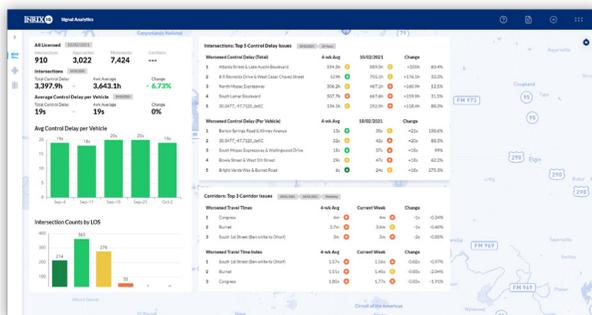
Signal Analytics display of intersections in Austin, TX during a special event, where significant delay is visualized.



Signal Analytics display of intersections in Austin, TX. Each intersection can be selected to reveal detailed metrics at the movement level.



CATT Lab Signal Analytics in Austin, TX, where custom intersection reports for desired dates and time periods can be performed.



Signal Analytics dashboard view can be used to understand if the network is improving and where there are potential opportunities to make intersections and corridors perform better.

**Continuously monitor every movement in your network without investing in equipment**

Signal Analytics creates a virtual infrastructure by continuously collecting connected car data across the entire network and provides accurate metrics for every movement and every intersection at a fraction of the cost of hardware-based solutions.

**Identify performance issues without ever leaving your desk**

By transforming trillions of data points into detailed and transparent metrics and trends, Signal Analytics helps agencies quickly answer almost any intersection- and corridor-related question to prioritize traffic signal projects and make meaningful improvements.

**Take proactive actions based on deep analysis and reliable performance trends**

Whether you need to reduce delays for just a few signals or improve performance throughout your entire network, Signal Analytics provides functional summaries, detailed daily reports, and data visualizations at the click of a button so you can immediately take action rather than waiting for residents to complain.

**Make cities more livable**

Poorly timed traffic signals often lead to longer commutes, increased energy use and air pollution, and more crashes. Signal Analytics provides a cost-effective way for agencies to assess and improve traffic signal performance systemwide so they can significantly improve traffic flow, reduce greenhouse gas emissions, and create safer intersections.

# Key Metrics and Features

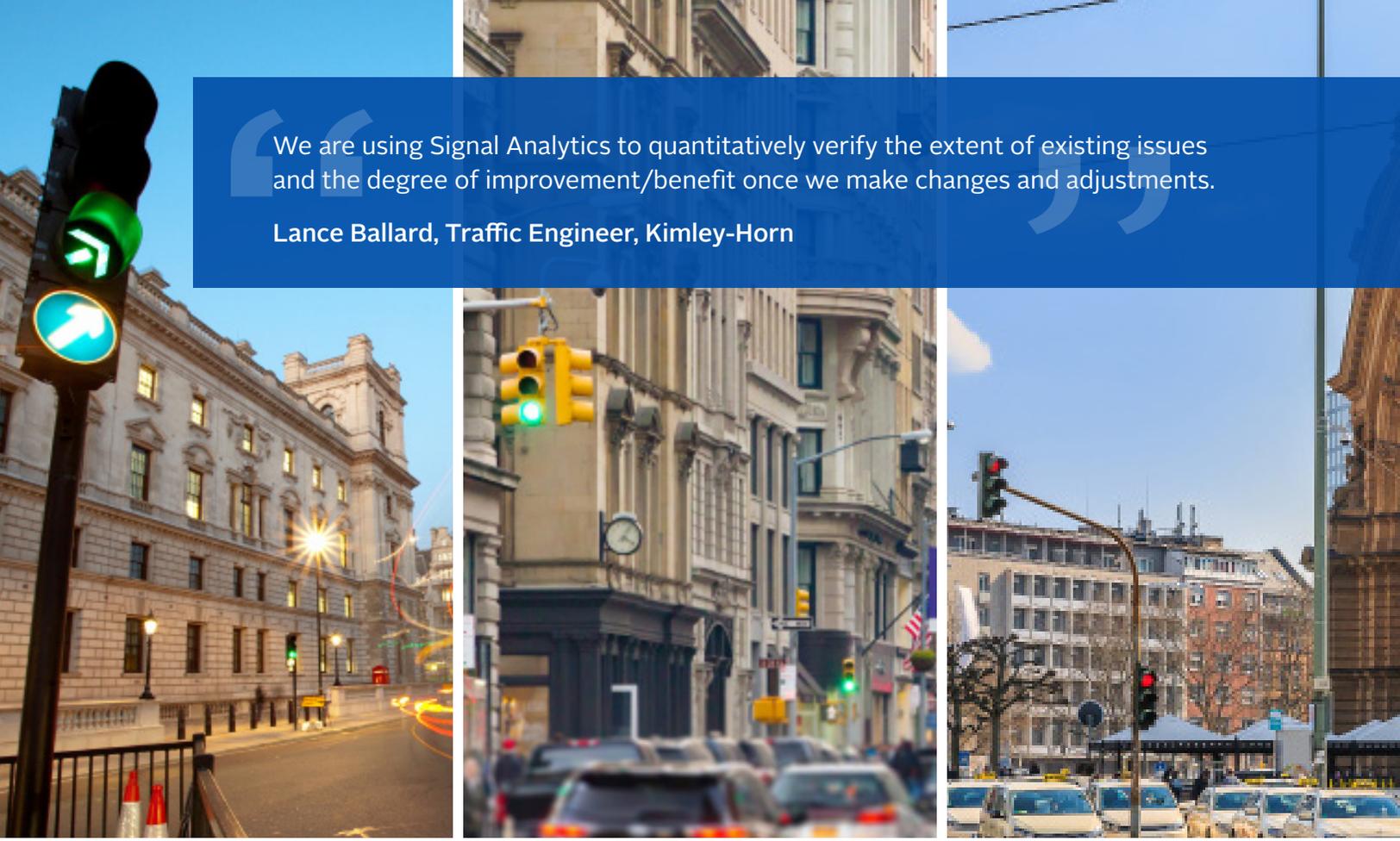
Signal Analytics provides agencies with the powerful insights they need to identify and solve performance issues at scale in a cost-effective way.

## Key Metrics

- **Delay:** The extra time required at an intersection due to slowing attributed to the signal compared to measured free-flow speeds.
- **Level of service:** A qualitative measure describing operational conditions within a traffic stream, based on average control delay.
- **Arrival on Green:** The percent of vehicles at the intersection without a stop recorded.
- **Split Failures:** The number of occurrences of a green light failing to meet vehicle volume demand, resulting in a vehicle stopping more than once at a traffic light.
- **Turning Movements:** The number of observed vehicles making left or right turns and through movements at the intersection for a chosen time period.
- **Travel Time:** The distribution of travel time for each movement at each intersection approach.
- **Approach Speed:** The speed distribution of vehicles directly before the intersection.

## Key Features

- **Intersection Analysis Module:** Powered by CATT Lab, this module allows you to dig deeper with a custom inspection of an intersection, such as running reports to determine when intersections are under performing or before and after reports to determine if a problem was solved.
- **Corridor Metrics:** Understand and analyze the reliability and performance of corridors at various times of the day. Signal Analytics makes it easy to define the beginning and end of corridors you are interested in.
- **Self-Serve:** Easily identify and select intersections and corridors using an interactive map.
- **Daily Reports:** Customizable daily reports provide details on the subscribed intersections & corridors, highlighting key metrics, problems, and trends along with visual infographics.
- **Interactive Dashboard:** Easy-to-use dashboard includes every metric needed to understand intersection performance, including control delay, split failures, turn ratio, volume, and more.
- **Virtual Infrastructure:** Massive amounts of anonymous vehicles data enables granular insights without relying on expensive hardware or fieldwork.
- **Easy -To-Use:** An intuitive and easy-to-use cloud-based application that doesn't require IT resources or data scientists to gain insights.



“ We are using Signal Analytics to quantitatively verify the extent of existing issues and the degree of improvement/benefit once we make changes and adjustments.

Lance Ballard, Traffic Engineer, Kimley-Horn

**Data You Can Trust:** Signal Analytics uses over 130 million vehicle intersection crossings per week covering approximately 240,000 intersections (and growing) to provide granular insights and leverages detector-based signal analytics platforms to validate and improve the parameters.

- GPS point data used in Signal Analytics is updated every 5 seconds or less
- Results are generated at 15-minute granularity at intersection, approach, movement, and corridor level
- Complete detail and transparency of metrics and trends are provided

INRIX enables smarter mobility by empowering cities, people, and businesses with the best data, tools, and insights to make movement smarter, safer, and faster. As a leader in mobility data and location intelligence for more than 15 years, INRIX helps world class organizations make calculated decisions about the world around them. INRIX turns 36B+ mobility data points into insights for some of the most innovative public sector agencies, automakers, and businesses so they can deliver better products and services to their customers and constituents.

#### **INRIX is a leading Mobility & Location Based Platform Globally**

- INRIX captures 120M trips per day in the US (1 out of every 7 miles driven in US)
- Insights are sourced from 145+ countries
- 36B+ real-time data points collected each day, 25M+ every minute
- 2T+ KM of vehicle trip data representing 35B+ driving hours

Learn more @ [INRIX.com/signals](https://www.inrix.com/signals)

**INRIX**