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 **Centracs**[®]
PREDICT

AI-powered predictive traffic operations for proactive signal control

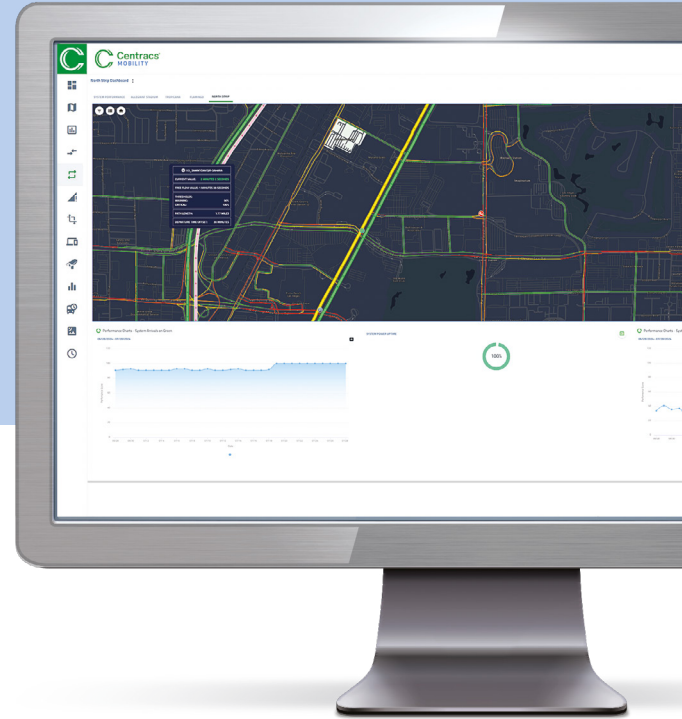
 **ECONOLITE**
part of Umovity

A new era in traffic management:

Delivering advanced levels of traffic signal control and intelligent automation

Today's traffic systems are built to react—but by the time congestion is detected, it's already too late. By combining Econolite's industry-leading Centrac's cloud-native ATMS platform with the advanced predictive intelligence of PTV Flows, Centrac's Predict enables agencies to anticipate traffic conditions before they occur—and take action in real time.

The result? A smarter, more adaptive traffic network that shifts operations from reactive response to proactive optimization.



The challenge with traditional systems

Traffic operators today face increasing demands with limited tools:

- Congestion forms before mitigation begins
- Signal timing adjustments are often manual and reactive
- Detection infrastructure is expensive to deploy and maintain
- Operators must manage overwhelming amounts of data
- Predictive insight is limited or nonexistent

The Centrac's Predict advantage

Centrac's Predict introduces a fundamentally different approach—one that leverages AI algorithms, cloud computing, and massive traffic datasets to continuously forecast and optimize performance across your network.

What sets Centrac's Predict apart

- **Predictive Intelligence** – Forecast travel times up to 60 minutes into the future enabling decisions before congestion occurs
- **Detectorless Operation** – Eliminate reliance on physical hardware reducing cost and complexity
- **Automated Optimization** – Dynamically adjust signal timing parameters including cycle lengths, offsets, and splits
- **Cloud-Based Scalability** – Built on the Centrac's ATMS platform, supporting deployment across entire networks with minimal infrastructure
- **Unmatched Data Depth** – Powered by TomTom global dataset with trillions of historical traffic data points

How it works

Centracs Predict integrates predictive analytics directly into your traffic operations environment, layering advanced intelligence on top of your existing ATMS capabilities. Through continuous machine learning and real-time data processing, the system:

- Analyzes current and historical traffic conditions
- Generates forward-looking travel time forecasts and proactive alerts
- Identifies emerging congestion patterns
- Automatically recommends or executes signal timing adjustments

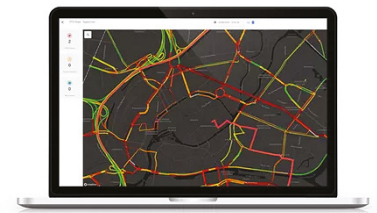
This creates a **closed-loop, self-improving system** for traffic optimization.



Predictive Traffic Insights

Gain real-time and forward-looking visibility into network performance:

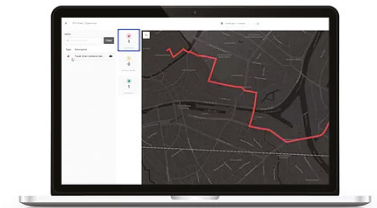
- Up to 1-hour travel time forecasts
- Early identification of congestion risks
- Enhanced situational awareness



Self-Updating Traffic Forecasts

Advanced Machine Learning

- Self-learning AI models that continuously improve over time
- Trained on one of the largest traffic datasets available



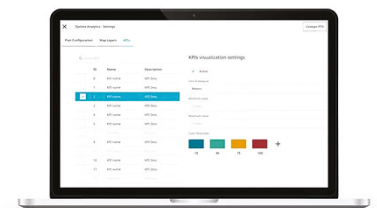
Predictive Automatic Alerting

Detectorless Insights and Control

- No need for physical sensors or field hardware
- Immediate deployment and rapid scalability
- Reduced capital and maintenance costs

Automated Traffic Management

- Corridor-based optimization using future conditions
- Dynamic adjustment of timing plans
- Reduced operator workload
- Real-time customizable alerts



Customization and Flexibility

Wide range of applications

Centracs Predict delivers value across a number of traffic management scenarios such as:

- **Proactive Congestion Mitigation** – Anticipate bottlenecks and optimize signals before delays occur
- **Corridor Optimization** – Continuously tune signal timing across key arterials for maximum flow efficiency
- **Incident Response** – Mitigate downstream impacts by responding to predicted spillbacks and disruptions through real-time alerts
- **Special Event Planning** – Prepare for demand surges with predictive traffic modeling and preemptive strategies
- **Network-Wide Visibility** – Understand system performance across the entire network—even without detectors

Interested in learning more about Centracs® Predict?

Our experts will be happy to speak with you and answer all of your questions.



For more info
or request a demo



Proven outcomes

Agencies using Centracs Predict experience meaningful improvements in performance and efficiency including:

- Reduced congestion and delay
- Improved travel time reliability
- Faster, more effective operational response
- Lower infrastructure and maintenance costs
- Scalable deployment across expanding networks

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