

KINETIC™ MOBILITY

SINGLE, INTEGRATED TRAFFIC MANAGEMENT SYSTEM (TMS)



OVERVIEW

The Q-Free Kinetic™ Mobility platform enables agencies to collaborate on common mobility goals across local, intercity, and regional operations. It achieves this through a single, user-configurable interface for all aspects of intelligent transportation systems – traffic signals, freeways, events, signs, video, and more.

Where most solutions force users to work in silos and restrict the integration of other manufacturers' devices, Kinetic breaks down silos to facilitate collaboration among communities, regions, and vendors and empowers agencies to:

- Improve regional traffic flow
- Increase road safety
- Reduce harmful carbon emissions
- Implement unique, holistic safety solutions

The system is uniquely designed to run on the cloud, an agency server, or a hybrid combination of both. Bare metal and cloud deployments can be migrated as needed between platforms without loss of data, functionality, or down-time, depending upon need. Kinetic Mobility's flexible procurement options allow for traditional licensing or software as a service (SaaS).

Leveraging a modern tech stack developed and used by tech giants, Kinetic Mobility provides optimal performance today and into the future.

BENEFITS

- Advance mobility across local, intercity, and regional traffic operations
- Unify freeway and signal management in a single, off-the-shelf ATMS system
- Improve traffic flow and safety in a collaborative and sustainable way



CLOUD OR
AGENCY SERVER
HOSTED



SCALABLE,
OPEN-SOURCE
TECHNOLOGY

MODERN, FLEXIBLE DESIGN

Leveraging widely-deployed, open-source technologies to improve safety and usability, the Q-Free Kinetic Mobility platform is built on a cloud-based modern tech stack to provide a scalable and flexible solution.

- True thin-client
- Designed using industry-best standards
- Open API
- Supports 3rd party controllers & devices
- Live updates to specific modules
- Scalable, dependable technologies

TECHNOLOGY STACK

Kinetic Mobility uses the following well-developed technologies:

- Linux operating system
- React user interface
- PostgreSQL database
- Kubernetes
- Docker
- GraphQL API

TECHNOLOGY ADVANTAGES

CONTAINERS

Container operations add scalability and reliability, which means that if a server is overwhelmed, there is the option to simply add additional servers to accommodate the demand and rebalance the system across all of the servers. The open-source technology also includes built-in redundancy.

OPEN DATABASE STRUCTURE

The initial benefit is no license fees. In addition, open-source database providers have a large user community for support of new features and functionality and adheres to SQL standards.

API ENGINE

The API engine serves as the central clearing house for all data - a one-stop-shop for data. It permits authenticated and gated data access to allow third-parties to retrieve datasets without opening up vulnerabilities to the system.

COMPONENTS & UI

With a consistent modern interface and ability to add features efficiently across all applications, the responsive design also moves seamlessly across different devices.

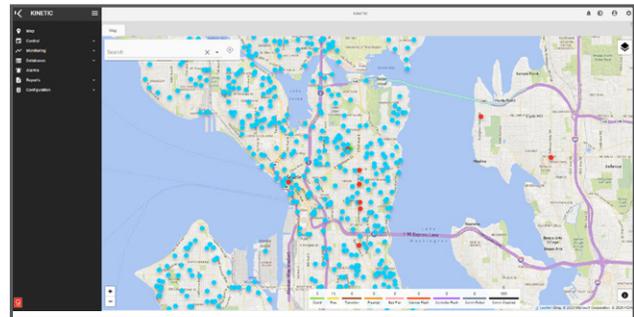
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KINETIC MOBILITY APPLICATIONS

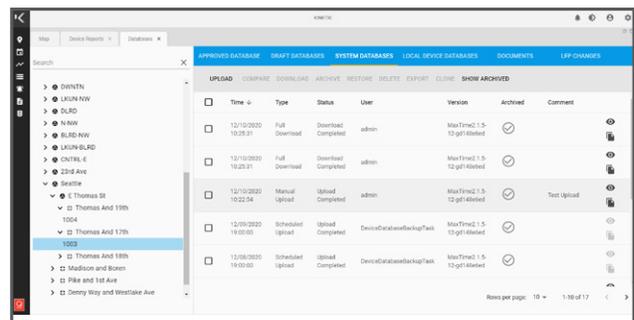
Designed around the most common traffic management operations, Kinetic Mobility will provide a seamless, interactive interface for freeway and signal management:

- Signals (formerly Intelight MAXVIEW)
- Event Management (formerly OpenTMS)
- Center-to-Center
- Analytics
- Connected Vehicles
- Video Management
- Ramp Metering
- Adaptive Signal Control
- Dynamic Message Signs

**Not all modules are currently available. Stay tuned.*



Kinetic Signals web user interface



Kinetic Signals database management

