

DRAFT

SIEMENS

TACTICS™

Central Advanced Traffic Management System

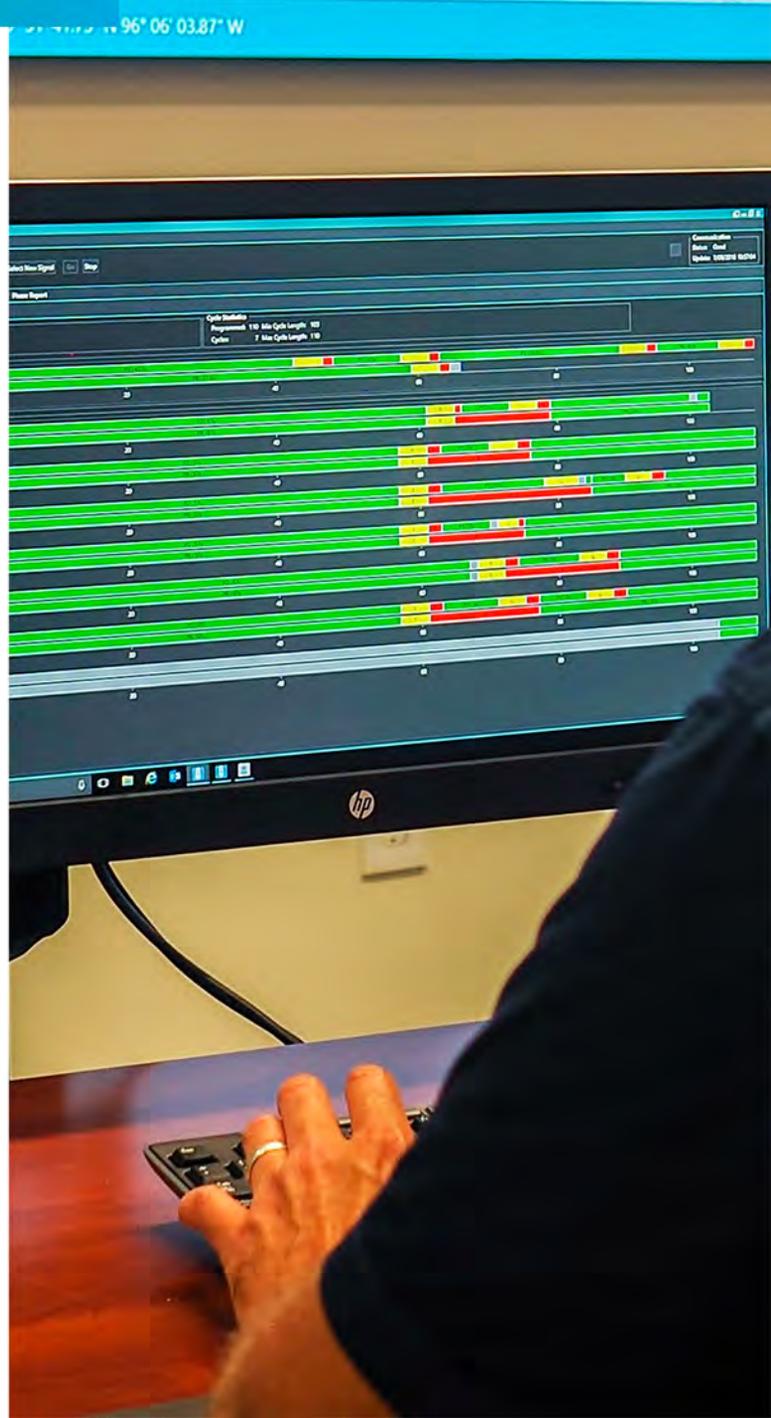
usa.siemens.com/intelligenttraffic

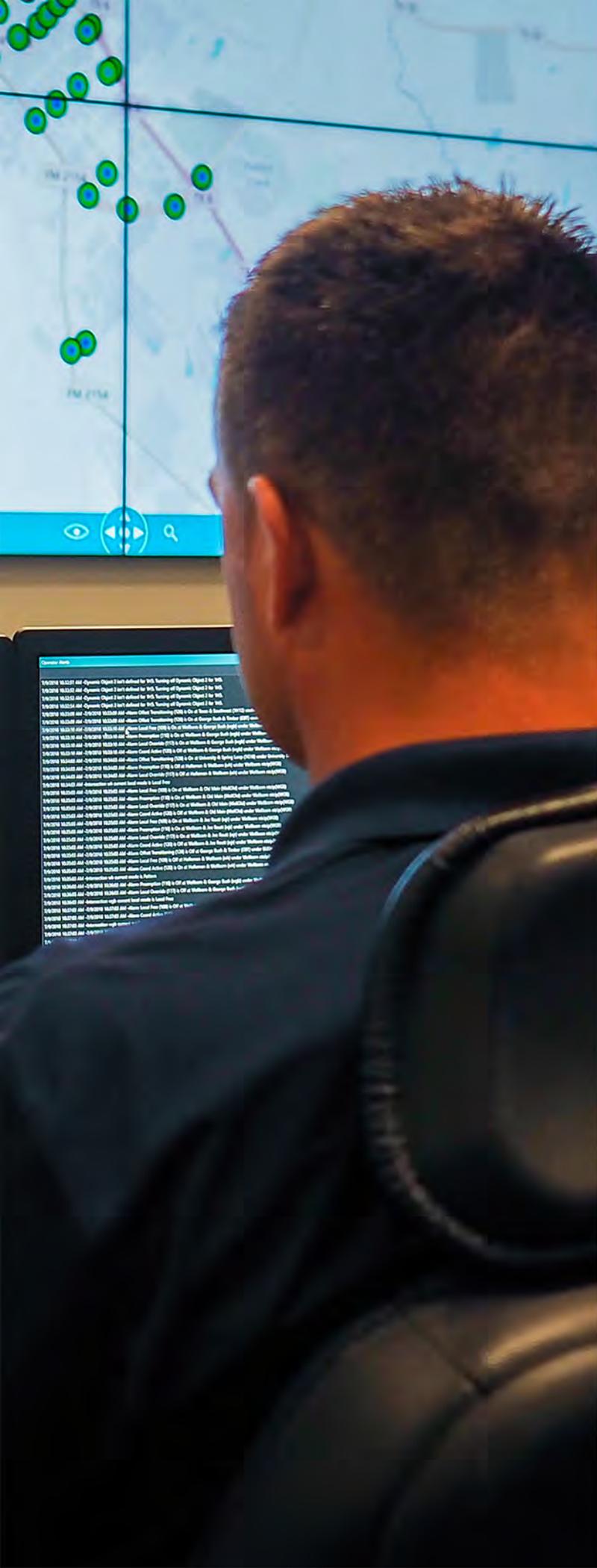
At a glance

TACTICS™ brings the latest technology for advanced traffic management for smart cities of today and the future

TACTICS™ 5 provides a powerful, scalable, resilient and easy-to-use traffic management system with a modern user interface that allows the user to

- Manage on-street traffic equipment through a single user interface
- Simplify configuration download/upload powered by YAML technology
- Monitor the overall system status through a summary dashboard
- Configure devices remotely
- Download controller software to field devices remotely
- Analyze the data by running reports and creating diagrams
- Create strategies and quick responses to react to pre-defined events automatically
- Easily search and quickly filter information throughout the system
- Quickly manage intersections using a map view
- Logically group controllers independent of signal control grouping





Controller support with NTCIP support

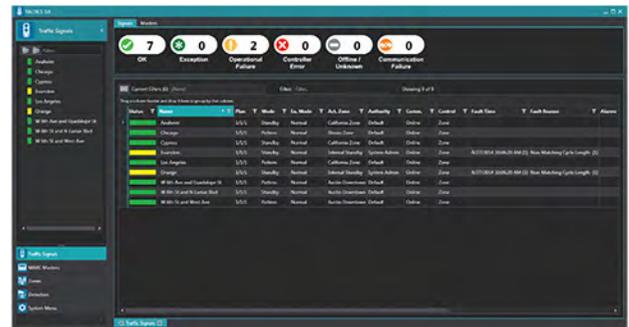
TACTICS™ can be used to manage and monitor a range of controller software, including those running SEPAC and SEMARC. In addition, it supports NTCIP equipment to be connected and monitored as well having a simple ECOM-to-NTCIP converter that facilitates the migration processes.

Flexible options to suit everyone

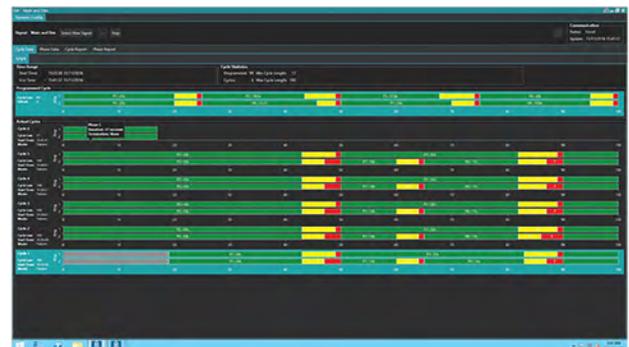
The solution is flexible, available with variants tailored to the needs of each traffic system. As it grows, TACTICS™ can also scale to the next level, supporting more functions and more field devices appropriately.

Dashboards and traffic data reporting

With an intuitive, configurable graphical user interface, TACTICS™ 5 provides summarized system dashboards as well as detailed traffic intersection information that report on phase status, splits, termination reasons and other programmed data for easy monitoring. Other traffic analysis tools are also available to give insights to the user through intersection diagrams as well as split monitoring and time-space diagrams.



Home Page



Split Monitor

Build resilience with automated traffic control via Quick Response

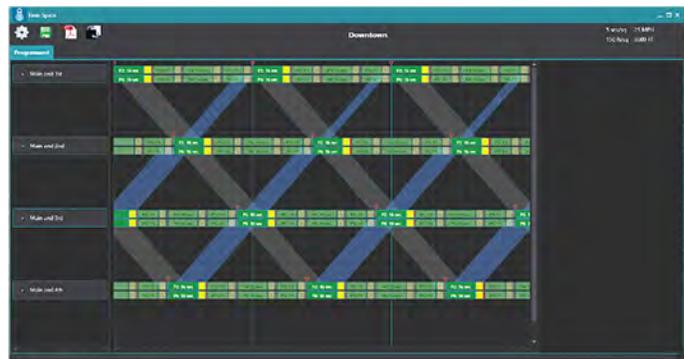
TACTICS™ 5 offers support for the creation and management of triggers and actions for pre-defined events through the Quick Response module. These configurable responses add a level of automation to the system that can help in planned and unforeseen situations, increasing resilience and adding robustness when managing traffic.

Installation made easy with a redesigned installer

The latest TACTICS™ has a completely redesigned installer with simplified user interface that allows engineers to install and upgrade TACTICS onto servers, workstations and standalone systems quickly using a small number of button clicks. The installer also provides support for patch updates to be deployed without having to reinstall TACTICS™ every time, making it easy for new features and patches to be deployed as they become available.

Seamless integration with Siemens SEPAC 5

The system is backwards compatible with older versions of SEPAC and offers full support to the latest Siemens SEPAC 5 traffic controller software, allowing users to benefit from traffic control features that include system banks, import/export facilities for configuration data and NTCIP compliance.



Time Space

Station	Name	Plan	Mode	Etc. Made	ACL Zone	Home Zone	Authority	Comm.	T	MARC	System	Control
OK												
	Anaheim	1/1/1	Pattern	Normal	California Zone	California Zone	Default	Online	-	Local	Zone	Zone
	Chicago	1/1/1	Pattern	Normal	Illinois Zone	Illinois Zone	Default	Online	-	Local	Zone	Zone
	Cypress	1/1/1	Pattern	Normal	California Zone	California Zone	Default	Online	-	Local	Zone	Zone
	Los Angeles	1/1/1	Pattern	Normal	California Zone	California Zone	Default	Online	-	Local	Zone	Zone
	W 6th Ave and Guadalupe St	1/1/1	Pattern	Normal	Austin Downtown	Austin Downtown	Default	Online	-	Local	Zone	Zone
	W 6th St and N Lamar Blvd	1/1/1	Pattern	Normal	Austin Downtown	Austin Downtown	Default	Online	-	Local	Zone	Zone
	W 6th St and West Ave	1/1/1	Pattern	Normal	Austin Downtown	Austin Downtown	Default	Online	-	Local	Zone	Zone
Default												
	Evacuation	1/1/1	Standby	Normal	Internal Standby	Illinois Zone	System Admin	Online	-	Local	Zone	Zone
	Change	1/1/1	Standby	Normal	Internal Standby	California Zone	System Admin	Online	-	Local	Zone	Zone

List Groups

TACTICS™ View

Designed for portable use, ideal for consultants and engineers who wish to manage intersection data and edit the controller database

TACTICS™ Marc

A closed-loop for field masters using SEMARC controller software that connects masters on the street for uploads/downloads with simple analysis and map displays

TACTICS™ smartGuard

Web-based traffic management solution that allows remote system management from any Internet-connected browser

TACTICS™ Central

Full signal control and traffic management features ideal for smaller cities or areas with a limited number of intersections

TACTICS™ Enterprise

Full signal control and traffic management features plus advanced functionality such as quick response, perfect for larger volumes of traffic equipment



Feature	TACTICS			
	View	Marc	Central	Enterprise
Password-protected access	✕	✕	✕	✕
Controller status	✕	✕	✕	✕
Controller database upload	✕	✕	✕	✕
Controller database download	✕	✕	✕	✕
Serial connection support (including Serial over IP)	✕	✕	✕	✕
Dial-up connection support	✕	✕	✕	✕
IP connection support	✕	✕	✕	✕
OSM-based map	✕	✕	✕	✕
Selectable themes	✕	✕	✕	✕
SEPAC ECOM Support	✕	✕	✕	✕
SEPAC NTCIP Support	✕	✕	✕	✕
Configurable logging	✕	✕	✕	✕
Communication server	—	✕	✕	✕
Multi-user controller access	—	✕	✕	✕
Permissions control	—	✕	✕	✕
Agency and jurisdictional permissions	—	✕	✕	✕
Dashboard	—	✕	✕	✕
Intersection Status	—	✕	✕	✕
System detector status	—	✕	✕	✕
Active alarm status	—	✕	✕	✕
Port server and client status	—	✕	✕	✕
List and compare database controller to central	—	✕	✕	✕
Parameter history and rollback	—	✕	✕	✕
MARC Master Support	—	✕	✕	✕
Standard and custom reports	—	✕	✕	✕
Synchro support	—	✕	✕	✕
System maps	—	✕	✕	✕
Custom map labels	—	✕	✕	✕
Traffic responsive	—	✕	✕	✕
Time of day	—	✕	✕	✕
Light Rail Transit support	—	✕	✕	✕
Zone/Group Broadcasts	—	○	✕	✕
Quick response	—	○	○	✕
Quick response status	—	○	○	✕
Time-space diagram	—	○	✕	✕
Split monitoring	—	○	✕	✕
Second-per-second monitoring	—	—	✕	✕
Logical grouping of controllers independent of signal control	—	—	✕	✕
Scalability with multiple communication servers	—	—	✕	✕
Upload/download from a controller to another	—	—	✕	✕
Virtual ports for 3 rd party applications	—	○	○	○
Center-to-center	—	—	○	○

Where: ✕ Standard — Optional ○ Not available

MoboTrex is committed to provide an Advanced Traffic Management System for Lake County Division of Transportation. Siemens TACTICS™ 5 brings the latest technology for advanced traffic management for smart cities of today and the future. TACTICS is a full featured system which complies with industry standards and is reliable, powerful, and easy to use. The Software Service Agreement is Siemens’ guaranty that LCDOT will have all the latest features. Thank you for the opportunity to provide this formal quote for TACTICS Central, Software Service Agreement, System Installation, and TACTICS Training.

TACTICS Central (125 intersections) <ul style="list-style-type: none"> Inclusive of 20 users <ul style="list-style-type: none"> License: the number of laptops or PCs User: the number of persons who can have password protected use of said software regardless of the machine Multiple users (logins) allowed on a single install of Tactics 	\$26,000
TACTICS Only Upgrades/Maintenance (125 intersections) for year 1 <ul style="list-style-type: none"> \$5,416.50/ per year 	\$5,416.50
System Installation: <ul style="list-style-type: none"> Pre-installation on-site survey and system assessment Installation of Tactics and County database on server and up to 5 laptops or work stations by MoboTrex. Lake County is allowed to install Tactics Central on additional computers Acceptance testing 	\$2,300
TACTICS Training: <ul style="list-style-type: none"> Basic training including basic navigation and commands Tactics user training by MoboTrex PTOE to be conducted within 90 days of acceptance 	\$1,000
Assumptions: <ul style="list-style-type: none"> County supplied server and workstation hardware and operating systems shall meet or exceed minimum requirements as defined in the document TACTICS 5 System Requirements and all operating systems shall have the latest updates applied. System installation labor, travel time and expenses are included. Any additional services not defined above shall be quoted separately. 	
TACTICS service agreement for each additional intersection within the 5 year period of the existing service agreement	\$44/ Ea
TACTICS Only Upgrades/Maintenance (125 intersections) <ul style="list-style-type: none"> \$5,416.50/ per year billed annually for years 2 - 5 	\$5,416.50/ Yr
	\$34,716.50

Sincerely,

RECOMMENDED FOR EXECUTION

Paul Leddy
General Manager, Chicagoland
MoboTrex, Inc.

Shane Schneider, P.E.
Director of Transportation/County Engineer