

SWARCO McCAIN, INC.

PRODUCT CATALOG

SWARCO | The Better Way. Every Day.

SWARCO is a growing international group providing the complete range of products, systems, services and solutions for road safety and intelligent traffic management.

With five decades of experience in the industry, the corporation supports the growing mobility needs of society with turnkey systems and solutions in road marking, urban and interurban traffic control, parking, public transport, infomobility and street lighting. Cooperative systems, I2V communication, electromobility, and integrated software solutions for the Smart City are the latest, future-oriented fields in the group's portfolio.

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McCAIN CABINETS

ATC CABINETS

Revolutionary cabinets combine the best of rack-mount and serial-based designs.

- 350i
- 352i
- 353i
- 356i
- 357i
- 358i¹
- MATC²
- PATC

CALTRANS CABINETS

Rack-mount cabinets in industry standard and agency specific configurations.

- 332
- 333
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- 341
- 342
- 344

NEMA CABINETS

NEMA (size 1-7) and Caltrans (size G, M, P, R) cabinets.

- NEMA TS 1
- NEMA TS 2 Type 1
- NEMA TS 2 Type 2

ATC CABINET SERIES

Leading the way for safer, more connected roads. Through best in class diagnostics, smart components, and cutting-edge technology, McCain ATC Cabinets are the safest available today. With the most sold in the industry, SWARCO McCain, Inc.'s proven ATC Cabinets meet the needs of today's smart cities and are ready for tomorrow's challenges, including the future of connected and autonomous vehicles.

- Handle up to 32 movements
- Safeguard against accidental contact with high-voltage components
- Expedite troubleshooting through advanced diagnostics
- Reduce agency liability through enhanced safety features
- Available in a low-voltage, 48 VDC design
- Connected vehicle ready



ITS EQUIPMENT CABINETS

SWARCO McCain, Inc. manufactures cabinets in a multitude of sizes and styles for applications, such as:

- Communication hubs
- Closed circuit television (CCTV)
- General storage

Insulated cabinets with rack-mount air conditioners for temperature-sensitive equipment are also available.

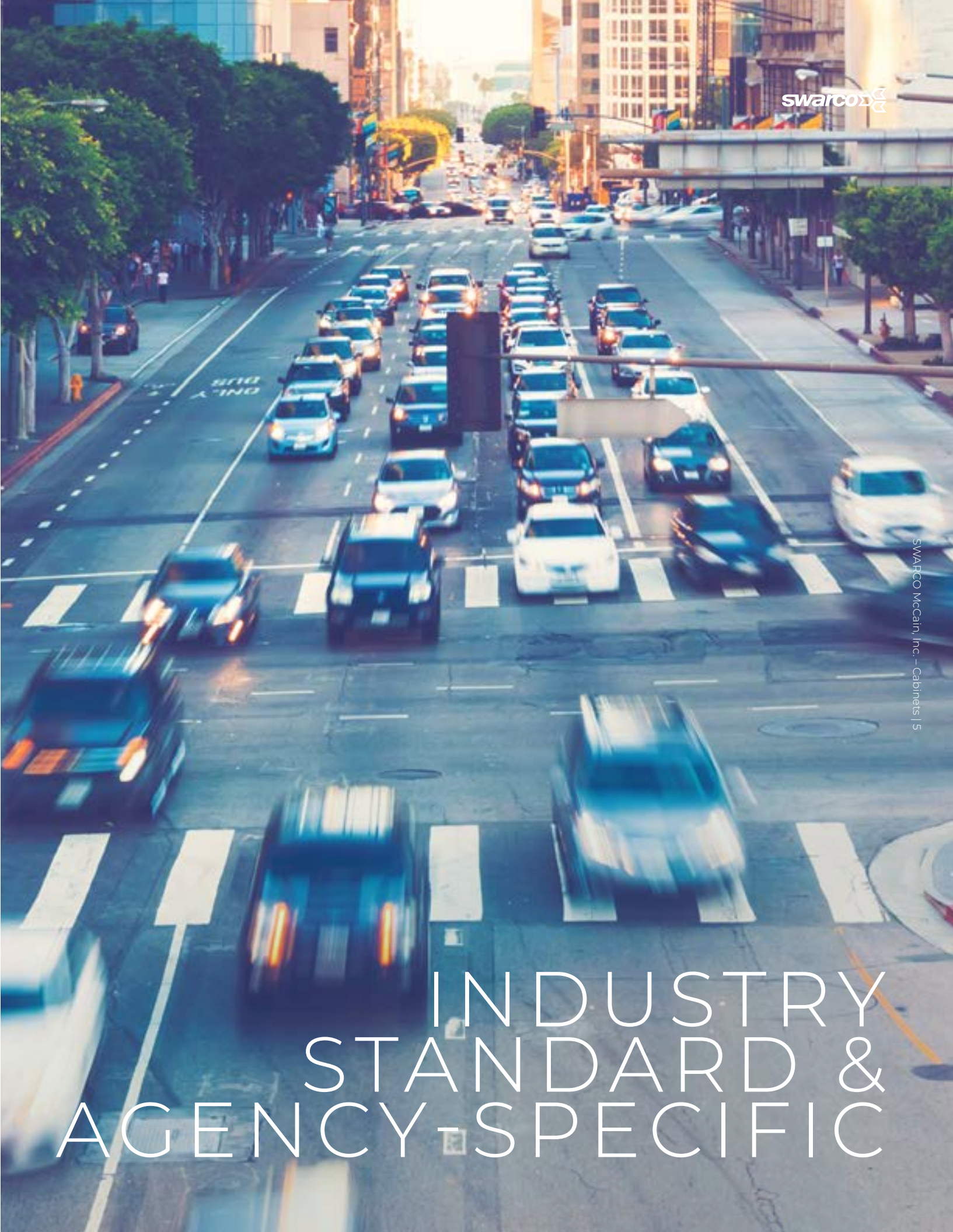
BATTERY BACKUP CABINETS (BBS)

Provide backup power to critical intersections as part of citywide emergency planning to promote safety for drivers and law enforcement.

- Multiple styles and sizes available
- NEMA 3R-rated version
- Fully equipped system for up to 16 hours of backup³

SWARCO MCCAIN, INC. PRODUCES MORE THAN 300 DIFFERENT CABINETS IN ADHERENCE WITH NATIONAL STANDARDS.

¹Informally known as the Backpack Cabinet
²Available in rack and shelf mount configurations
³Optional; Average backup based on typical LED intersection



INDUSTRY
STANDARD &
AGENCY-SPECIFIC



VERSATILE & EFFICIENT

¹Combined maximum
²High voltage components are defined as having greater than 50V
³Per NEC
⁴Ready to support evolution to low-voltage operations, such as less than 2 watt LEDs

McCain Cabinets (CONTINUED)

CABINET PERIPHERALS

SWARCO McCain, Inc. partners with a number of suppliers to ensure that every cabinet is fully equipped to meet your needs.

- Alarm panels
- Cabinet test display
- Detector cards
- Flash transfer relays
- Flashers
- Input test panels
- Network switches
- Optical vehicle preemption
- Pedestals and risers
- Power supplies
- Railroad interface panels
- Signal monitors
- Switch packs
- Video detection

ATC CABINET TEST DISPLAY

Easily view and troubleshoot traffic signal statuses.

- Reset CMU remotely
- Perform absence of signal, conflict, and dual indications tests on each output
- Test up to 32 channels on a single test display



WHICH CABINET IS RIGHT FOR YOU?

Reference the chart below to easily compare standard industry specifications or contact SWARCO McCain, Inc. for assistance.

	NEMA TS 1	NEMA TS 2	170/2070	ITS	ATC
KEY CABINET ASSEMBLIES					
CMU channels, maximum	18	16	18	32	32
Detector inputs, maximum	8	64	28	120	120
Phase, overlap, and ped outputs ¹	18	16	18	32	32
Flasher output monitoring				✓	✓
Programming method	program card	program card	varies	datakey	datakey
SAFETY FEATURES					
Load current monitoring					✓
Flash intersection while replacing output assembly					✓
High-voltage components not exposed ^{2,3}					✓
Main circuit breaker located at point of power service entry ³	varies	varies	varies	✓	✓
Main contractor mercury free	varies	varies	varies	✓	✓
STANDARD FEATURES					
Supports 3rd party hardware and application software	varies	varies	✓	✓	✓
Modular design				✓	✓
Rack mount (EIA) rails			✓	✓	✓
Flash transfer relay/main contractor energized in normal operation	varies	✓	varies	✓	✓
Serial bus communication speed		153 Kbps		614 Kbps	614 Kbps
Cabinet power architecture	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC 48 VDC ⁴
Flasher fuse monitoring					✓
Input test panel	✓	✓			✓
Alarm panel					✓



ADVANCED TRANSPORTATION DATA & CONTROL

McCain CONTROLLERS


Rugged and powerful, SWARCO McCain, Inc.'s controllers are strategically designed for any size deployment and any level of complexity. All controllers are available with optional local controller software for applications including intersection control, ramp metering, arterial master, or reversible lane control. Easily upgrade, enhance, or reconfigure existing traffic signal controllers with available modules and peripherals.

ATC CONTROLLERS

SWARCO McCain, Inc.'s ATC Controllers provide a single hardware platform compatible with any cabinet type, including legacy and modern ATC, Caltrans, ITS, and NEMA cabinets. Built around the ATC standard, each controller provides an open-architecture design that facilitates migration to next generation traffic control applications.

Every McCain ATC Controller features:

- Linux operating system that supports third-party software
- Cutting-edge microprocessor technology
- USB ports that support data transfer, software upgrades, and log retrievals



ATC FLeX® CONTROLLER SERIES

The latest in SWARCO McCain, Inc.'s eX series of Advanced Transportation Controllers (ATC), the McCain ATC FLeX Controller uses a real-time, open-source operating system that supports the latest ITS applications, high-resolution data collection, TSP functionality, and improved coordination. Additionally, the McCain ATC FLeX Controller is the only controller on the market with an available option for integrated wireless connectivity.

Measuring just 5.5" tall¹, the compact design is available in four options offering versatility and performance for any ATC, NEMA, or Caltrans-style cabinet configuration:

- Shelf Mount
- Rack Mount
- TS 2 Type 1
- TS 2 Type 2

2070 CONTROLLERS

The open architecture of 2070 controllers promotes interchangeability, permitting a range of traffic control applications and configurations.

- 2070E
- 2070LX²



CONTROLLER SOFTWARE

SWARCO McCain, Inc.'s software sets the standard for traffic signal control and has a reputation for performance and reliability. Designed, developed, and tested to meet the rigorous demands of modern traffic control, SWARCO McCain, Inc. has software solutions available for legacy and modern traffic controllers for a variety of applications.

- Intersection control
- Ramp metering
- Transit signal priority

OMNI eX® INTERSECTION CONTROL SOFTWARE

SWARCO McCain, Inc.'s Omni eX is a state-of-the-art transportation control software for McCain ATC Controllers and other compatible ATC traffic controllers. Built upon NTCIP 1202 and other unique SWARCO McCain, Inc. traffic control algorithms, Omni eX software is a single solution for any infrastructure—ATC, Caltrans, and NEMA.

Standard features and benefits include:

- Advanced priority operations
- Built-in data validation
- Complex and multi-intersection control
- High-resolution data
- Improved traffic control
- Peer-to-peer
- Intuitive web interface

TESTING EQUIPMENT

Test, troubleshoot, and demonstrate controllers before implementing major changes in the field.

SUITCASE TESTERS

Available for 170, 2070, and NEMA controllers



ATC CYBERCABINET®

Developed by SRE Services and exclusively distributed by SWARCO McCain, Inc., the ATC *CyberCabinet* provides engineers with a software based solution to test and validate the functionality of an ATC Controller database without the need for a full cabinet assembly.

- Produce higher quality results in less time
- Minimize the need for callbacks



CONNECTED VEHICLE READY

Transform your infrastructure into a data collection hub and provide a platform for connected and autonomous vehicle applications with McCain Omni eX Intersection Control Software. Capable of gathering and providing essential data, such as SPaT, and revolutionizing the way signals operate.

¹Rack and shelf mount. NEMA versions vary in height
²Designed to meet or exceed ATC, Caltrans TEES, and NEMA TS 2 standards, where applicable

McCain SIGNALS

TRAFFIC SIGNALS

SWARCO McCain, Inc.'s standard and programmable traffic signals are available in various configurations to meet your needs.

INDUSTRY STANDARD SIGNALS



- 8" and 12" modular design
- Fabricated from aluminum or polycarbonate (with or without a 10% fiberglass reinforcement)

PROGRAMMABLE SIGNALS



- 12" programmable signals
- Aluminum fabrication
- Superior, targeted visibility

PEDESTRIAN SIGNALS

Industry standard pedestrian signals are constructed from top-of-the-line aluminum or polycarbonate.

PEDESTRIAN SIGNALS



- 12" (1 or 2 section) or 16"
- Standard symbols or custom messaging
- LED or incandescent modules

PEDESTRIAN PUSHBUTTONS



- 5" x 7" or 9" x 12"
- ADA compliant options
- Tested to 10 million cycles
- Standard or custom messaging
- Double-sided options reduce inventory requirements

SIGNAL ACCESSORIES AND FRAMEWORK

SWARCO McCain, Inc. offers a wide variety of accessories for traffic signals, pedestrian signals, and pushbuttons including a framework collection to cover the gamut of every mounting need.



- Advance warning beacons
- Backplates
- Enforcer
- LED and incandescent optical assemblies
- Mushroom flasher
- Pipe fittings and hardware
- Vehicle and pedestrian mounting options
- Visors



SAFELY
GUIDING
MOTORISTS &
PEDESTRIANS

PROMOTING SAFETY & AWARENESS



DYNAMIC MESSAGE SIGNS

Promote road safety and awareness by providing travelers with information about unique driving conditions, events, or alerts.

BLANK-OUT SIGNS (BOS)



Enhance driver safety with high-visibility LED blank-out signs, a great alternative to static message signs.

- Automatic dimming
- Control with NTCIP or contact enclosure
- Conforms to MUTCD standards
- Also available in Full Matrix

LANE CONTROL SIGNS (LCS)



Provide accurate lane status through strategically placed, high-quality, LED displays.

- Control via override, local, or central schedule
- Meets or exceeds NEC and NEMA standards
- Green arrow, red "X", and yellow arrows

VARIABLE SPEED LIMIT SIGNS (VSLs)



Adjust the speed limit in response to weather or congestion. Ideal for highway active traffic management.

- Fully programmable
- Ultra-bright RGB LEDs viewable in any environment
- Lightweight, weather-proof enclosure

DYNAMIC MESSAGE SIGNS

SWARCO McCain, Inc.'s Dynamic Message Signs (DMS), available in arterial, front access or walk-in formats, provide pertinent roadside information and warnings to en-route motorists.

Commonly used DMS applications include safety information near airports and major venues, data regarding road closures or detours, direction and availability of carpool lanes or toll roads, advisory phone numbers, and general alerts.

CHANGEABLE MESSAGE SIGNS (CMS) 800 SERIES

Utilizing the same superior technology as the standard McCain DMS, the McCain CMS 800 Series offers even more sizes and configurations.

- Arterial: CMS 810 and 820
- Front Access: CMS 800



CMS 800

McCAIN SIGNS

STREET NAME SIGNS

Combining quality construction with the latest reflective materials and lighting techniques, SWARCO McCain, Inc.'s street name signs promote safety at every intersection.

ILLUMINATED STREET NAME SIGNS (ISNS)



- Increase safety and visibility
- Uses energy-saving LEDs

REFLECTORIZED STREET NAME SIGNS (RSNS)



- Various colors, sizes, and designs
- Durable aluminum construction

LEVERAGING SWARCO'S PRECISION OPTIC LENS TECHNOLOGY, MCCAIN DYNAMIC MESSAGE SIGNS USE A TENTH OF THE POWER OF COMPETITOR SIGNS, PROVIDE UNRIVALED LEGIBILITY THROUGH A UNIQUE 3-IN-1 LED, AND BOAST ONE OF THE LOWEST MAINTENANCE AND COST OF OWNERSHIP ON THE MARKET TODAY.

ITS SOLUTIONS

OVERVIEW

Intelligent transportation systems (ITS) provide a set of tools for creating a connected, automated transportation system driven by data and responsive to the needs of travelers and operators. Promoting local, regional, and statewide integration and mobility, ITS transforms the way society moves.

A powerful combination of standards-compliant technology, proprietary algorithms, and tried-and-true methodology, SWARCO McCain, Inc.'s integrated ITS solutions offer ways to:

- Reduce congestion
- Improve traffic flow
- Share data across jurisdictions
- Integrate systems
- Enable connected vehicle applications

Dynamic and versatile, SWARCO McCain, Inc.'s software solutions are easy to configure or customize to meet project requirements.

Best of all, the systems are fully complementary and compatible with SWARCO McCain, Inc.'s full line of traffic equipment and devices.

CONSULTATION AND SUPPORT

To accomplish the mission of providing the best quality products and service, SWARCO McCain, Inc. goes beyond strictly filling orders by offering top-notch customer support. Especially valuable in the ever-changing realm of ITS, SWARCO McCain, Inc. created a team dedicated to its intelligent transportation systems, the ITS Solutions Group.

ITS SOLUTIONS GROUP

The ITS Solutions Group works with customers to identify solutions that meet their needs, including custom development when warranted. This dedicated team continues to provide support through system deployment and integration to ensure end-to-end functionality at the close of each project.

SOFTWARE MAINTENANCE PLANS

Every SWARCO McCain, Inc. software solution is available with an optional Software Maintenance Plan. The plan covers feature additions, technical support, personalized training sessions, and assistance with system backup and recovery.

Software Maintenance Plans are available in one-year increments and provide flexibility to meet individual support requirements.

CENTRAL CONTROL SOFTWARE



MYCITY SOLUTIONS SUITE

The MyCity Solutions Suite is a comprehensive collection of software products designed to streamline traffic management and promote mobility through real-time traffic data collection and management tools. Fully scalable to meet the size and scope of your agency's requirements, each product of this suite is built to address specific challenges. From optimizing traffic flow and prioritizing emergency vehicles to enhancing road safety and monitoring your entire transportation network, MyCity has you covered!

MYCITY

At its core, MyCity provides dependable monitoring and control of system-wide traffic conditions and devices. Best of all, the intuitive and user-friendly interface is easy to learn, use, and customize; allowing it to be quickly implemented and mastered.

MyCity also offers support for connected and autonomous vehicle (CAV) applications and data subscriptions.

- Monitor system-wide traffic conditions and devices
- Command innovative control strategies
- Analyze performance and trends
- Enable proactive management
- Centralize documentation and inventory control
- Ensure system integrity through data validation
- Boost accountability with user security and activity logs
- Connect communities and jurisdictions
- Enable connected vehicle applications

MYCITY SMART PRIORITY

MyCity Smart Priority is a scalable cloud-based solution designed for customized priority requests at traffic lights. MyCity Smart Priority leverages your current hardware and infrastructure to prioritize buses, emergency vehicles, and bikes. This virtual prioritization approach is not only more cost-effective but also easier to implement and environmentally sustainable.

MYCITY TrafficPlanIQ

MyCity TrafficPlanIQ streamlines all workflows for traffic engineers, acting as the single solution that can be used to collect data, generate timing plans, and deploy them to signal controllers. With MyCity TrafficPlanIQ, you can effortlessly create timing plans tailored for each day of the week, generating a timing plan in less than two minutes.

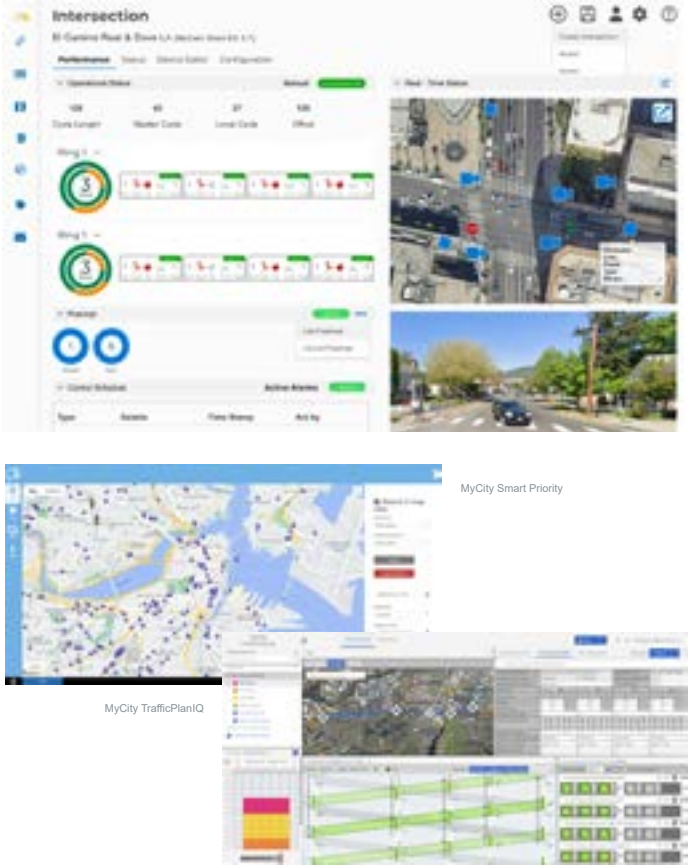
MYCITY SPM

MyCity Signal Performance Measures (SPM) delivers interactive charts to enhance user experience, decision-making, security, and extensibility to implement effective signal timing improvements.

¹ITS in Use Today US DOT ITS Joint Programs Office

MYCITY ADAPTIVE

MyCity Adaptive optimizes signal timing on the fly based on current demand and system capacity, moving vehicles faster and more efficiently than pre-programmed signal timing plans and operations.



CONNECTED VEHICLE READY

Intelligent transportation systems are a fundamental component to the future of connected and autonomous vehicles. The MyCity Suite helps bridge the gap between today's systems and the future of CAV through advanced data collection, reporting, and subscription services.

"ITS IMPROVES TRANSPORTATION SAFETY AND MOBILITY, REDUCES ENVIRONMENTAL IMPACT, AND ENHANCES PRODUCTIVITY."¹