IN-VEHICLE HARDWARE AND PERIPHERAL DEVICES

📍 MOBILE DATA TERMINAL

The Ranger is a rugged, compact mobile data terminal installed in vehicles and connects the fleet with dispatch. Rangers interface with Streets ITS software and act as a hub for other on-board technology.

- Displays important information in easy-to-read format, including: pre/post-trip checklist, driver's manifest, next stop and advance turn alerts, critical events, and detour awareness.
- Flexible bus assignment and single point of logon for all integrated in-bus hardware.
- Built-in GPS receiver provides detailed AVL reporting to dispatch, and route and schedule adherence to drivers, alerting them if they are off-route or off-schedule.
- Real time, canned-text communication with

RANGER

dispatch to minimize distractions. Has both physical buttons and touch screen interface.
- Built-in basic passenger counter functionality.
- Remote updating and troubleshooting.

📣 AUTOMATED AUDIO AND VISUAL ANNOUNCEMENTS (AVA)

TripSpark's AVA solution presents stop, route, transfer point and other information both audibly and visually, providing riders with important travel information. The automated system ensures agencies meet ADA requirements, eliminating the need to rely on drivers to make stop announcements.

- Integrates seamlessly with the Ranger MDT and Streets.
- Text-to-speech, pre-recorded messages and multiple languages are supported.

- Files and pronunciation dictionaries are stored locally, for continuous service.
- Interior and exterior messages can be triggered independently and provide unique content.
- Pre-configured announcements can be triggered on the MDT by the driver.
- Dispatchers can remotely send real-time, ad-hoc announcements to any or all vehicles in the fleet.
- Volume can be controlled locally or remotely.

AUTOMATED AUDIO AND VISUAL ANNOUNCEMENTS (AVA)

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👥 AUTOMATIC PASSENGER COUNTER (APC)

APCs provide cost-effective and accurate collection of ridership data that can be used for reporting and identifying service improvements. Superior 3D matrix infrared sensor technology performs in all lighting conditions, provides accurate boarding/alighting counts even with bunching, and differentiates passengers from objects such as luggage and strollers.

- The current passenger load is visible in Streets, allowing dispatchers to take pre-emptive action to address capacity issues.
- Passengers can view bus capacity via MyRide, allowing them to make more informed travel plans.
- APC data is incorporated into multiple reports, supporting NTD reporting and revealing valuable operational insights.

AUTOMATIC PASSENGER COUNTER

▶ MYRIDE INFOTAINMENT

MyRide Infotainment improves passenger awareness of real-time status and travel options, helping riders make informed travel choices, save time and enjoy their commute. Real-time information from Streets is pushed to all modes of the MyRide passenger information system, including infotainment, giving riders access to important trip information, service alerts and wayfinding information.

- An unmatched range of digital display sizes, shapes and capabilities for transit property and on-board signage is available.
- Signage supports multiple media types, including: PDF, images, video, HTML5 animations, interactivity, and visual apps.
- Content can be changed or triggered depending on the geographic area, pre-selected external conditions (like weather), and time of day and/or calendar schedule.
- Agencies can offer advertising opportunities, opening up a non-farebox revenue source.
- Adaptable system and content management support tiers meet the needs and internal staffing capacity of any sized agency.
- Cloud-based software remotely monitors all devices in the network and allows agencies to oversee their content anywhere, anytime.

MYRIDE INFOTAINMENT

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◼ MOBILE VIDEO SURVEILLANCE

Installing cameras and a recording system on-board buses not only improves passenger and operator safety, it can also provide tangible financial benefits. These benefits range from being a deterrent against vandalism to mitigating fraudulent and frivolous lawsuits, which can lead to lower insurance rates.
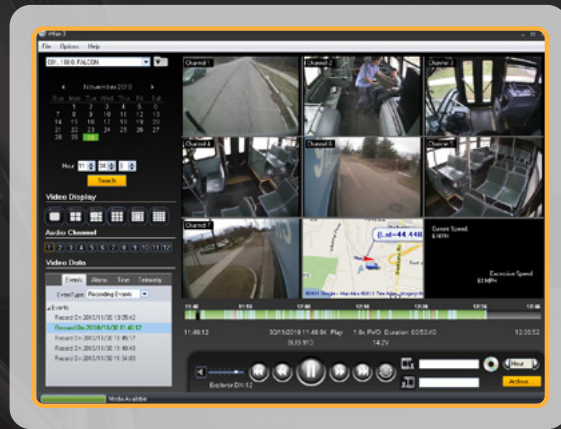
MOBILE VIDEO SURVEILLANCE

◤ LOCATION MONITORING UNITS (LMU)

Location Monitoring Units can be installed in supervisor and other agency vehicles, so dispatchers can quickly find the location of support vehicles on the AVL map in Streets Dispatch. Agencies are also able to review vehicle history, offering visibility into past locations and speeds of vehicles.

📶 PASSENGER WI-FI

Purpose-built routers create Vehicle Area Networks (VANs) that allow agencies to offer on-board wireless Internet access to their riders, makings their journeys more enjoyable and productive. The ability to connect to multiple on-board components means that only one data plan is required.

LOCATION MONITORING UNITS

PASSENGER WI-FI

TripSpark

📊 ADVANCED VEHICLE DIAGNOSTICS

TripSpark offers a comprehensive vehicle health monitoring solution delivered by our sister company, AssetWorks. The mobile vehicle health monitoring application runs in the background on the Ranger MDT, collecting and reporting mechanical and driver behavioral data points. The data are then sent to a separate hosted environment that can be accessed online.

- Engine Diagnostic Monitoring: monitor and report Diagnostic Trouble Codes, mileage and engine hours.
- Driver Behavior: track unwanted behavior such as aggressive driving, speeding, idling and unauthorized use. These metrics can also be used to create personalized driver scorecards and to validate customer complaints.
- Accident Reconstruction: the Ranger MDT gathers speed, location, acceleration/deceleration, RPM level and input state once every second, so a detailed incident reconstruction report can be generated for any incident that has occurred within the last seven days. A real-time alert is also sent to dispatch if incident thresholds for acceleration, breaking and swerving

Vehicle Diagnostic	
Vehicle:	ME50
Driver:	Not Available
Started:	12/2/2014 11:37 AM
Ended:	
Malfuction Indicator Lamp::	Unspecified
Protect Lamp::	Unspecified
Amber Lamp::	Unspecified
Red Lamp::	Unspecified
Active DTCs:	SPN: 4616 FMI: 3, SPN: 1622 FMI: 3, SPN: 264 FMI: 11
Total Time:	1h 40m
Priority:	None

ADVANCED VEHICLE DIAGNOSTICS

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🖥 WAYSIDE SIGNS (LCD AND LED)

LCD wayside signs display on-time bus status, emergency or general information at busy transfer points or central stations. They run automatically, displaying real-time information from Streets and can be branded with an agency's colors and logo. Signs come in a wide range of sizes. Both indoor and weather-proof, sunlight-readable outdoor versions are available.

LED wayside signs, also known as dynamic message signs, display real-time bus departure information, RSS feeds, messages, time and weather conditions at high traffic bus stops or transfer stations. A number of single or double-sided display sizes are available, with optional integrated audio announcements.

WAYSIDE SIGNS (LCD AND LED)

⚙ SUPPORTED PERIPHERAL INTEGRATION

- **Automatic Passenger Counters (APCs).** TripSpark has integrated with multiple APC solutions, and has supported mixed fleets that used previously installed and new APCs. For agencies with existing APCs, TripSpark can integrate with them to support real-time tracking of passenger loads and provide consolidated reporting.
- **Third-Party Fareboxes.** The Ranger MDT interfaces with many commercially available electronic fare card readers, including GFI fareboxes.
- **Headsigns.** The Ranger MDT integrates with headsigns, automatically changing route and destination information when interlining routes so drivers don't have to trigger signage changes.
- **Wheelchair Ramp Deployment Monitoring.** Track wheelchair ramp deployments and generate reports to provide evidence of ADA support, identify where passengers are accessing lifts, and ensure adequate dwell time to allow for boarding.
- **Transit Signal Priority (TSP).** Transit Signal Priority systems keep buses running on time by reducing dwell times at traffic signals, either extending green lights or shortening red lights. The Ranger MDT can trigger the TSP emitter on the vehicle when it exceeds the schedule adherence threshold configured in Streets.

HEADSIGNS

MOVING ≫ ≪ TOGETHER

TripSpark is a people transportation technology company helping increase service and access to transportation, improve rider satisfaction, drive revenue, and overcome operational challenges. Our solution suites include fixed route, rideshare, NEMT, and on-demand (paratransit, demand response, microtransit). We are not just a vendor—we are your long-term strategic partner, offering the latest technologies and providing exceptional support.

🌐 **www.tripspark.com** | ✉ **info@tripspark.com**

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