



CleverCAD

BETTER INSIGHT EQUALS BETTER SERVICE

250+
Customers



30,000
Installations



28 Billion
Trips/Year



1 in 3
public transport buses
use CD technology.



6 of 10
North America's largest
agencies use us.



Agencies Trust Clever Devices

WE BELIEVE IN **INNOVATION.**

- Our commitment to innovation is seen in our continued investment in R&D of more than 15% of revenue annually.
- We work with our customers to be sure our visions for the future of mobility align.

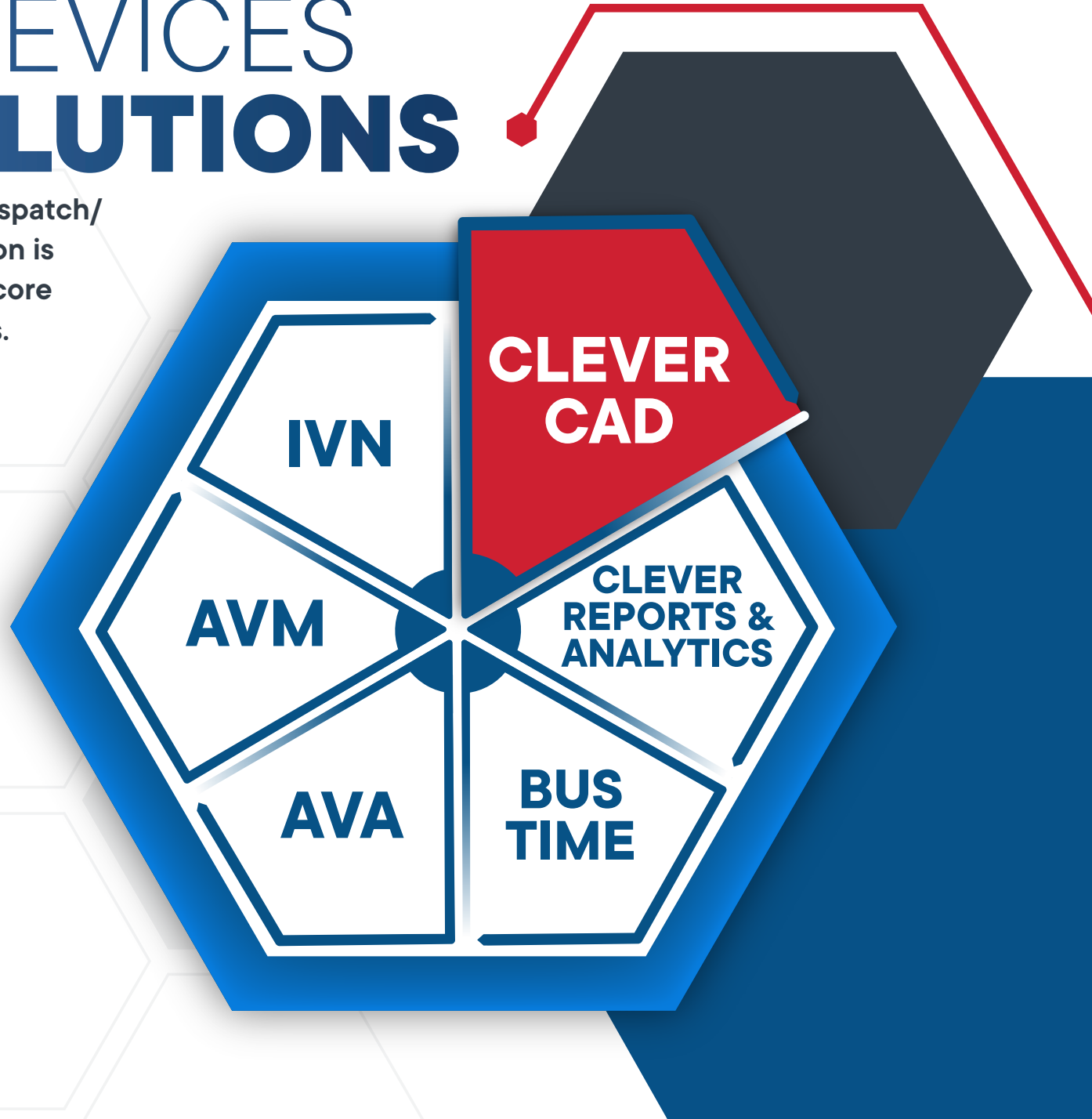
Agencies Choose Clever Devices More Often

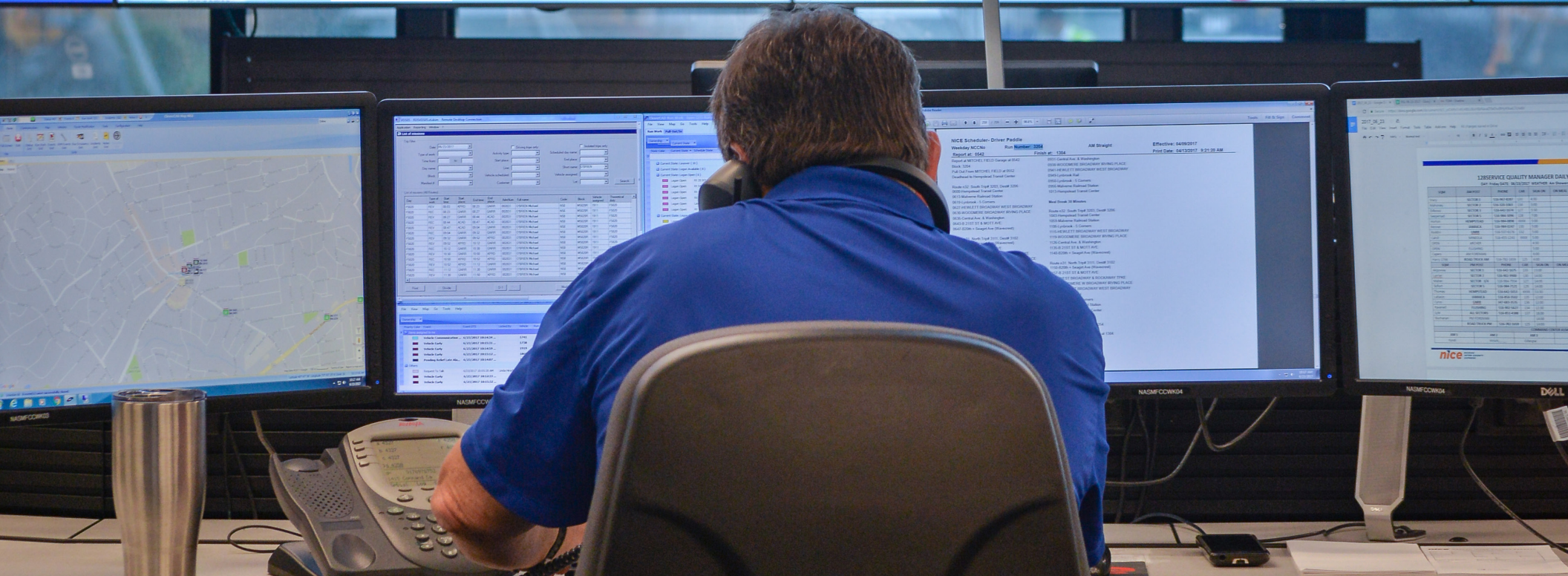
In the past 10 years, Clever Devices has completed more large scale ITS projects in North America than any other competitor including;

- New York (6000+ vehicles)
- Washington, DC (1700+ vehicles)
- Toronto (1900+ vehicles)
- Chicago (1800+ vehicles)
- 50+ RFPs won since 2012.
- 50% of RFPs we choose to bid on WE win.
- Over \$300 million awarded in contracts in the past 7 years.

CLEVER DEVICES **CORE SOLUTIONS**

CleverCAD, our Computer Aided Dispatch/
Automated Vehicle Location solution is
an integral part of Clever Devices' core
Intelligent Transportation Solutions.





NICE
ROAD
ON OR CLOSE
ON OR CLOSE
ON OR CLOSE
DELAYS
ON OR CLOSE

Clever Devices

Time	Lat	Long	Speed	Altitude	Heading	Color	Shape	Size
10:00:00	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:01	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:02	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:03	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:04	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:05	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:06	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:07	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:08	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:09	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:10	34.0522	-118.2437	0	100	0	Red	Square	100

Time	Lat	Long	Speed	Altitude	Heading	Color	Shape	Size
10:00:11	34.0522	-118.2437	0	100	0	Red	Square	100
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10:00:13	34.0522	-118.2437	0	100	0	Red	Square	100
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10:00:20	34.0522	-118.2437	0	100	0	Red	Square	100

NICE Scheduler - Driver Paddy
Weekly NCNA - Run Number: 394
Report #: 6642
AM Stript
Effective: 04/09/17
Print Date: 04/12/17 9:31:10 AM

0010 Columbia & Thompson
0020 BRIDGEWAY BRIDGEWAY PLACE
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0990 Thompson Street Center
1000 Thompson Street Center

Time	Lat	Long	Speed	Altitude	Heading	Color	Shape	Size
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10:00:22	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:23	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:24	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:25	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:26	34.0522	-118.2437	0	100	0	Red	Square	100
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10:00:29	34.0522	-118.2437	0	100	0	Red	Square	100
10:00:30	34.0522	-118.2437	0	100	0	Red	Square	100

YOUR EYES AND EARS ON THE STREET

Visibility and oversight into real-time operations are vital to your fleet's overall performance. CleverCAD is a Computer-Aided Dispatch and Automated Vehicle Location (CAD/AVL) solution that provides a real-time picture of the location and status of every in-service vehicle, comprehensive communication capabilities between dispatchers, supervisors and operators and the ability to more effectively manage incidents and unplanned service disruptions.

CleverCAD is built upon a set of modules. Our standard modules include Service Management, Event Management and Incident Management. Additional capabilities are offered in Enhanced Modules which include Disruption Management, CleverCAD Mobile and Vehicle and Operator Assignment Module.

STANDARD MODULES

Service Management

- Headway Management
- Communications

Event Management

Incident Management

ENHANCED MODULES

Disruption Management

Vehicle & Operator Assignment

CleverCAD Mobile

BENEFITS

Increased Dispatcher Efficiency

Improved Communications

Quicker Response to Security Concerns

Event-Driven Incident Management

Intuitive Categorization of Fleet and Operational Data

SERVICE MANAGEMENT

Manage your fleet on the street and stay connected to operators.

INCREASED DISPATCHER EFFICIENCY REAL-TIME VEHICLE LOCATIONS

Easily navigate CleverCAD with the use of Google Maps.

- This includes full integration with street view and real-time traffic conditions to understand the true nature of what's going on in your city.

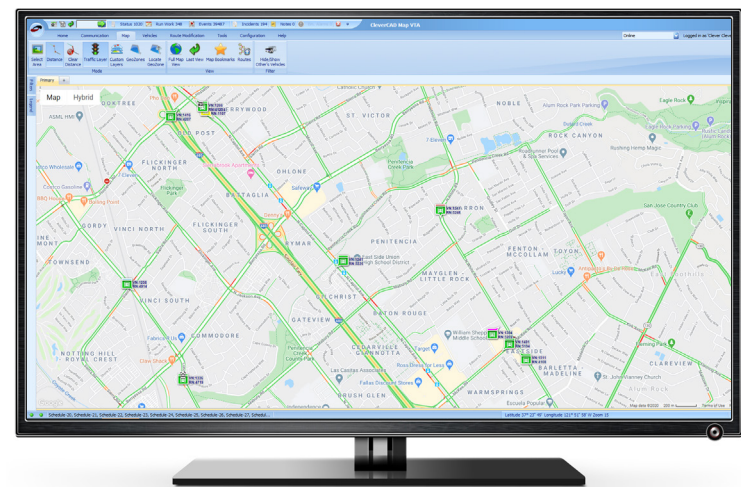
CONFIGURABLE WORKSPACE

No need to search for alerts; Create your own tabular view for need-to-know service or vehicle information, such as:

- Open work
- Vehicle log on status
- Vehicle speed
- Early/late
- On-route status
- Passenger load
- Route adherence

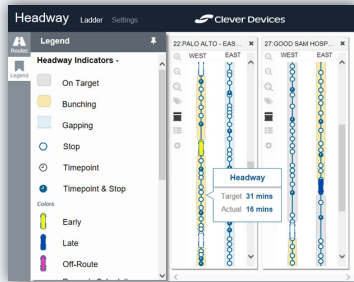
REAL-TIME KEY PERFORMANCE INDICATOR DASHBOARDS

Manage the most important issues first. CleverCADs *Real-time Key Performance Indicator* dashboards provided a real-time display of current fleet performance while highlighting and prioritizing top deviations from previously set norms.



HEADWAY MANAGEMENT

Service rarely runs as originally planned. Congestion, light timing, and other unforeseen disruptions can leave you with gaps in service. CleverCAD's Headway Monitor allows dispatchers to view vehicles in an accurate and simple way, enabling them to easily make intelligent decisions to improve service.



Collapsible navigation helps optimize screen real estate. View a single route or multiple routes at one for better efficiency.



Vehicle operators can also self-regulate their headway spacing by providing information on their Transit Control Head (TCH).

COMMUNICATIONS

CleverCAD provides radio control that is in sync with your operations. Your dispatchers can connect private or group calls across routes, modes, and service types to reduce overall radio traffic while improving direct communications.



TEXT

Inform operators quickly and efficiently with custom or canned text messages while reducing radio chatter for non-critical communications.



VOICE

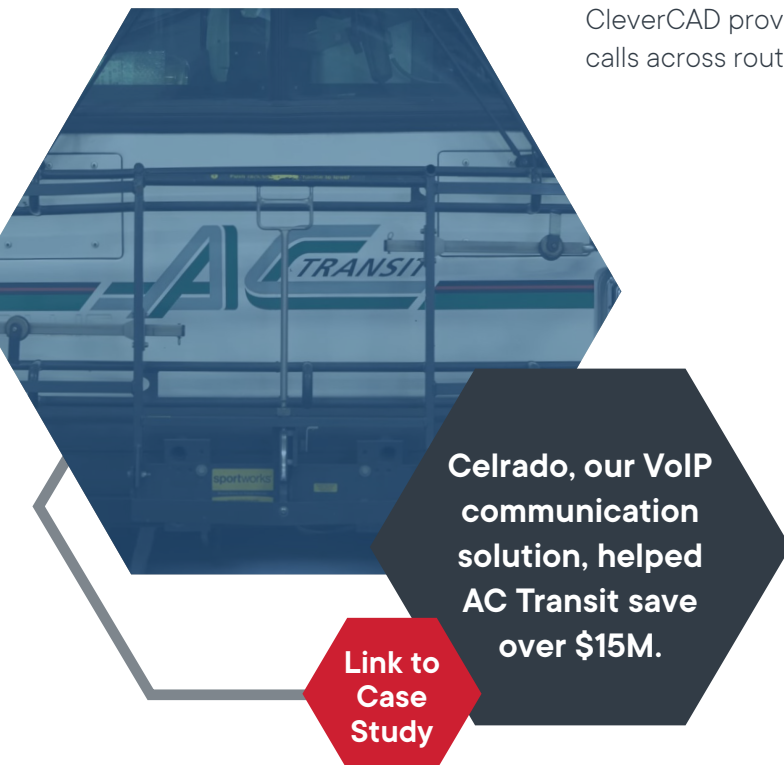
Call a specific vehicle or a group of vehicles in a certain area or the entire fleet – there are no communication limitations – CleverCAD works with all communication types including:

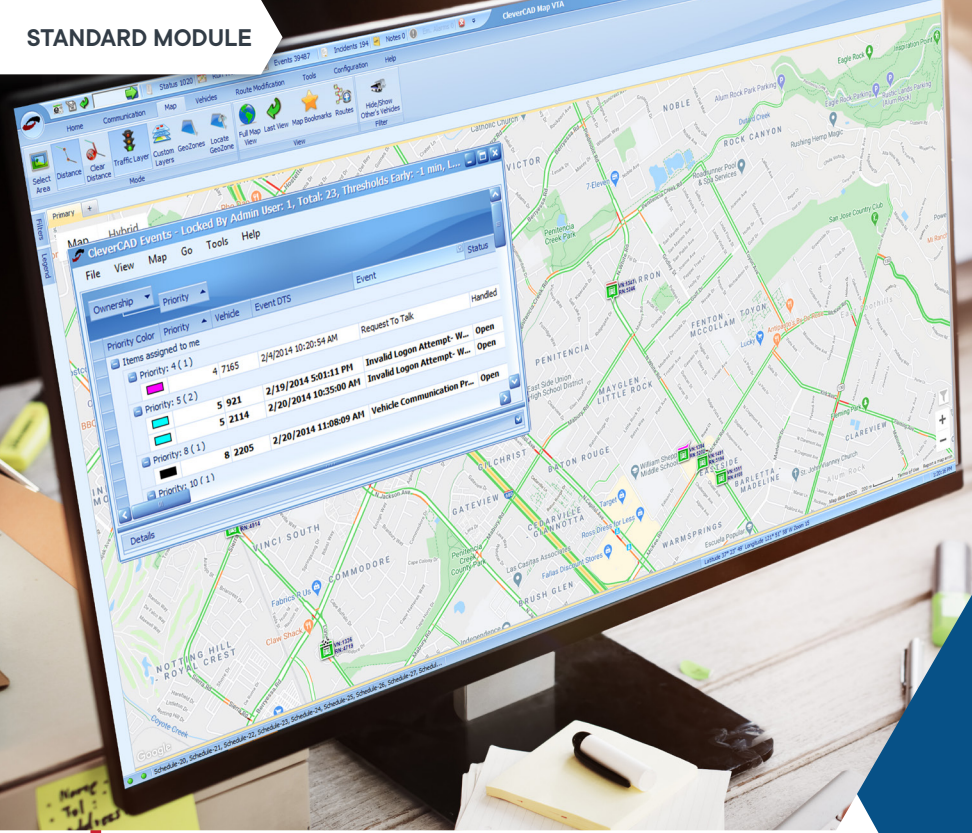
- Standard Land Mobile Radio.
- Voice Over IP (VoIP) – Clever Devices VoIP solution, Celrado provides all the features and functionality of your LMR system at a fraction of the cost.



PUBLIC SERVICE ANNOUNCEMENT

Tap into any vehicle to inform the public of service changes or onboard – such as social distancing or a mask reminder.





INCIDENT MANAGEMENT

Keep track of all deviations in normal service.

After an event occurs during service, such as bus crowding or a late pullout, it will need to be recorded for daily/weekly/monthly reports. CleverCAD makes this as easy as possible. Our incident forms will automatically record what is happening in an event saving time, preserving chain of custody, and providing transparency of status by logging when changes are made to the form.

Do your operations continue to see a pattern of events? CleverCAD's Incident Management module also allows for on-demand playback of historical data.

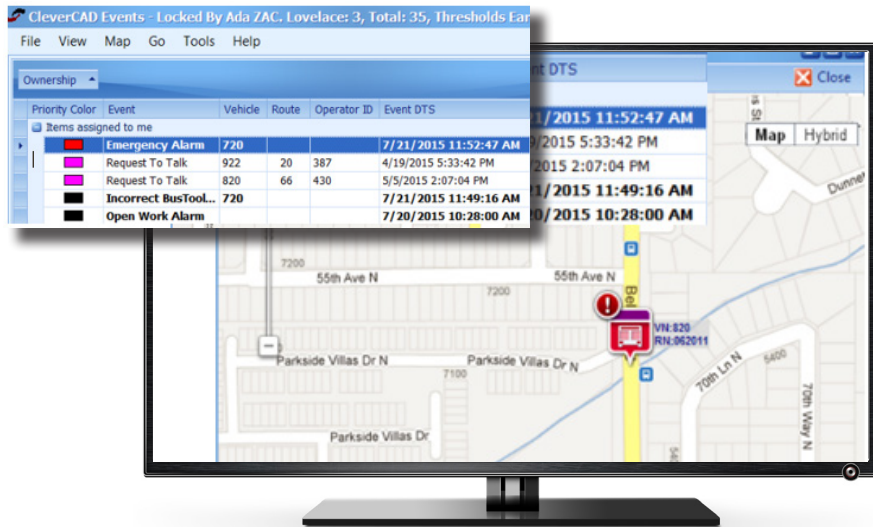
Incident:
Form: General Incident

Summary

Number One Escalation: <input type="checkbox"/>	Reported To: <input type="text"/>
Problem Code#: AC-ACCIDENTS	Called In By: <input type="text"/>
Trouble Code#: AHMB	Summary: <input type="text"/>
Source: <input type="text"/>	Details: <input type="text"/>
Responsibility Code: <input type="text"/>	Camera: <input type="checkbox"/>
Status#: Open	Drive Camera: <input type="checkbox"/>
Owned By#: Admin User	Location Service Resumed: <input type="text"/>
Reported By: <input type="text"/>	Event Text: <input type="text"/>
Time Of Response: <input type="text"/>	
Create Date: 7/21/2015 9:17:28 AM	
Incident Start: 7/21/2015 9:17:28 AM	
Time In: <input type="text"/>	
Time Out: <input type="text"/>	
Vehicle Delay: <input type="text"/>	
Work Resumed Time: <input type="text"/>	
Resulting Schedule Lost: <input type="text"/>	

EVENT MANAGEMENT

Dispatchers are alerted the moment there is a deviation from normal service.



EASILY MANAGE AND RECORD

- Voice calls with Request To Talk (RTT) and Priority Request To Talk (PRTT).
- Bunching and gapping during service.
- Vehicle fault information and high priority maintenance events.
- Emergency alarm management.

CLEVERCAD EMERGENCY ALARM

Quickly respond to security concerns.

Unfortunately, there are moments that can occur during service that can put the operator and your passengers in danger. Maybe an assailant boards the vehicle or an incident occurs between two passengers.

With CleverCAD's covert EA switch, your operator can hit one button and immediately notify dispatch of an onboard incident.

Once the EA switch is hit CleverCAD:

- Opens live covert audio to the dispatcher so they can be aware of what's going on onboard.
- Automatically generates an incident form.



DISRUPTION MANAGEMENT

React to unplanned issues in real-time.

It happens every day. You publish a schedule, and some type of service disruption occurs that requires you to adjust it. Sometimes it is something big such as a major weather event, a water main break or a pandemic.

But more often, it's road congestion or a traffic accident that keeps your vehicles off schedule. While you cannot control these unexpected circumstances, you can control how you react to them.

The Disruption Management Module for CleverCAD® reduces the manual nature of the actions taken when a disruption happens and ensures that all systems get updated at the same time.



Dispatcher makes a change in route to avoid construction.

Operators are provided with the updated schedule immediately.

Your customers are informed in real-time via RTP1 and wayside signage.

Your daily reports are now reporting the actual service instead of the planned service.

Planners and schedulers can take these reports into account for the next schedule pick.

Learn more about Disruption Management
and how it can help your operations.

[Link to
Solution Brief](#)

THIS STOP
AMSTERDAM AV/W 86 ST

TRANSFERS AVAILABLE FOR:
M86+

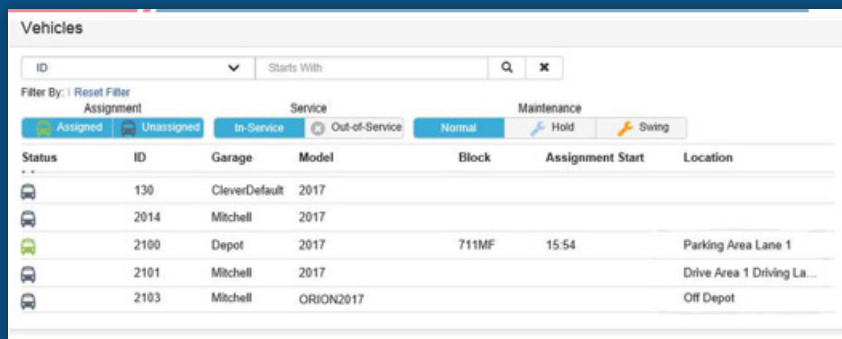
Stay Alert
Don't
Get Hurt

Watch out –
don't tune out!



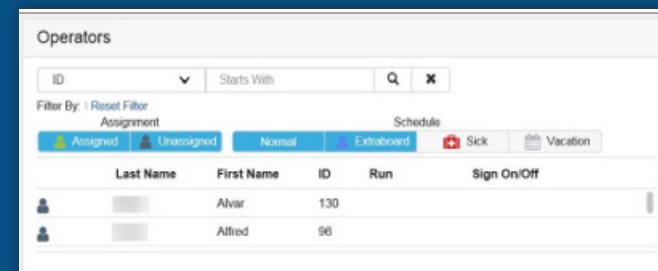
VEHICLE & OPERATOR ASSIGNMENT MODULE

Your dispatcher expertly manages a disruption in service with the Disruption Management module, but what happens when an additional vehicle or vehicle replacement is needed to aid in the schedule change on the street? CleverCAD offers the ability to do this in our Vehicle and Operator Assignment Module (VOAM). Add an available vehicle and operator with ease using VOAM's web-based, intuitive user views of the assignments, as well as a drag and drop interface.



Status	ID	Garage	Model	Block	Assignment Start	Location
	130	CleverDefault	2017			
	2014	Mitchell	2017			
	2100	Depot	2017	711MF	15:54	Parking Area Lane 1
	2101	Mitchell	2017			Drive Area 1 Driving La...
	2103	Mitchell	ORION2017			Off Depot

Easily create a scenario or operation in VOAMs daily management view by Operator or Vehicle.



Last Name	First Name	ID	Run	Sign On/Off
	Alvar	130		
	Allied	96		



CLEVERCAD MOBILE

With CleverCAD Mobile, supervisors can access most everything within CleverCAD on a mobile, lightweight tablet.

INCIDENTS

Dispatchers can see where Supervisors are located on the CleverCAD map and quickly deploy them to a scene of an incident.

Supervisors can use CleverCAD mobile to:

- Quickly begin an incident report.
- Record images and directly attach them to the report.

DISRUPTION MANAGEMENT

Supervisors have a unique view of the real-time service of an agency. They can:

- Make modifications to service on the spot if they see an issue with bunching or gapping in real-time.
- Ride the proposed detour route to be sure the vehicle can perform the work.

COMMUNICATION

Supervisors have the same communication capability as dispatchers back in the Operations Control Center (OCC):

- Easily text select vehicle.
- Call vehicles running specific routes via VoIP.
- Send PSAs to play onboard.

WHY CHOOSE **CLEVER DEVICES**

Clever Devices is the leading provider of ITS solutions for public transportation in North America. Headquartered in New York, the company has over 300 customers around the world with offices in the North American, South America and Europe. In addition to our complete fleet management and operations control solutions, our robust portfolio also includes solutions for transit scheduling, real-time passenger information, safety and security, business intelligence and communications.

1
out of
3

**public buses in North
America has Clever Devices
technology on-board**

5
out of the
top 10

**North American
agencies choose
Clever Devices**

50%
of the
top 100

**agencies in
North America are
Clever Devices customers**

PUBLIC TRANSPORTATION IS ALL WE DO

Clever Devices is the only major North American ITS solution provider focused entirely on meeting the needs of public transportation. As a privately-owned company that has been in the hands of two families for decades, we are free from the distractions commonly found in publicly traded companies. Our success is measured not on shareholder value or revenue, but solely through the eyes of our customers.

- 100% focused on public transportation.
- Our customer's success is our priority – your experience is all that matters.
- Experience with agencies of all sizes from – from 50 vehicles to 6000.
- Proven ability to scale – over 60% of our workforce is dedicated to the successful deployment of projects and customer satisfaction.



HOW DASH BUILT THEIR COMPLETE ITS SOLUTION PIECE BY PIECE

Alexandria Transit (DASH) represents a growing community of smaller agencies who have realized that investment in technology is critical to sustainability. And, like most other transit agencies, what stands between DASH and their desire for the most advanced ITS solutions is a lack of funding. Watch the video to learn how DASH built their ITS solution in a way that worked for them.

[Watch the Video](#)



CleverCAD

BETTER INSIGHT EQUALS BETTER SERVICE

Let us show you how CleverCAD can better enable your dispatchers to communicate directly with vehicles and manage routes more effectively than ever before.

Schedule a demo today

 **Clever Devices**
Where Mobility Matters