

INFODEV

Electronic Designers International



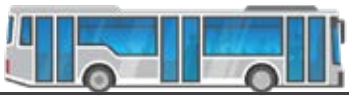
DRIVE YOUR DATA FORWARD



AUTOMATIC PASSENGER COUNTING SOLUTIONS

For Transit Buses

Ideal for : Bus Manufacturers, Integrators & Bus
Fleet Operators and Transit Agencies



Automatic Passenger Counting For Transit Buses



INFODEV offers a complete Automatic Passenger Counting solutions for public transport companies and integrators.



INFODEV, THE LEADING PROVEN TECHNOLOGY

In operation since 1993, Infodev EDI is the world's leaders of Raw Accuracy in the industry of Automatic People and Passenger Counting Systems. Infodev EDI is a turnkey supplier working with public transport companies, integrators, and bus builders. Our head office and production facility are located in Quebec City, Canada with a regional office in Europe.

Infodev EDI is renowned for its cutting-edge technology and dedicated team of professionals. **Infodev EDI Automatic Passenger Counting Systems has achieved many times a verified counting accuracy between 97.5% and 99.5% in vehicles without the application of any correction factors.** Infodev EDI offers TCPIP/PoE, high-performance wireless technologies and minimum cabling, thus lowering overall costs. **The end result is a highly accurate, fully standalone or integrated, lightweight, quickly installed and easily maintained Automatic Passenger Counting system.**

New and exciting technologies are currently emerging in Infodev's EDI Innovation Labs. Contact our sales team today to learn more.

TRUSTED BY:



And many more...



Automatic Passenger Counting
For Transit Buses

INFODEV POSSESSES A CUTTING-EDGE EXPERTISE IN ALL THESE SPECIALTIES:

SERVICES



PROJECT
MANAGEMENT



INSTALLATION



TECHNICAL
SUPPORT



TRAINING

PRODUCT DESIGN, DEVELOPMENT AND PRODUCTION



ELECTRONICS



OPTICS



MECHANICS



FIRMWARE



APPLICATION
SOFTWARE



PLANNING YOUR FUTURE AUTOMATIC PASSENGER COUNTING (APC) SYSTEM



The acquisition, installation, and commissioning of a new Automatic Passenger Counting system requires effective preparation and supervision. Infodev's dedicated and knowledgeable staff will gladly assist you with the design and implementation of your project and provide you with successful outcomes. In the early stage of a new project, they can help you to:

- Survey and study the physical particularities of your vehicles and infrastructure;
- Plan your IT systems, interfaces, and reports;
- Develop budget and schedule;
- Review applicable standards.



Automatic Passenger Counting For Transit Buses

OUR PASSENGER COUNTING SOLUTIONS

ACCURATE AND RELIABLE

- **Accuracy between 97.5% and 99.5% has been proven many times**, provided by unique electro-optical technology that requires no correction factors (ex.: seasonal, per sensor, etc.).
- High-definition sensors that do not count small objects
- Counting data independent of passenger and luggage weight, for each station or stop and for any given period or specific time
- Simple and easy online access to application software, data and customized counting reports
- Certification of counting accuracy proven by video validation
- From single components to all-inclusive fixed price projects

KEY ADVANTAGES OF OUR APC



No minimum height required for installation.



Sensors cover the entire door's width and are installed directly above the gap.



No lateral or frontal obstruction of the field of view even in high density period.



Unaffected by light sources or speed of passage.

ACCURACY RESULTS

No correction, uncertain counts, profiling, tempering or statistical manipulation applied to the data. * Real data from various customers between 2008 and 2017.

TYPE	MANUAL COUNTS	INFODEV ACCURACY
Bus	15,554	99.13%
Train	2,236	98.03%
Bus	1,349	98.37%
Bus	4,942	97.98%
Train	2,652	98.11%
Bus	12,019	98.23%
Bus	3,947	98.91%
Train	1,830	98.31%
Train	9,958	99.24%
Train	3,148	97.68%
Train	4,579	98.61%
Train	11,588	98.02%
Train	7,272	99.29%
TOTAL:	81,074	98.46%

INFODEV'S PASSENGER COUNTING SYSTEMS: DESIGNED TO BENEFIT OUR CLIENTS IN EVERY WAY



Factory Calibrated Sensor Assemblies

Do not require any costly and time consuming recurring manual recalibration or data profiling.



Discreet & Aesthetic

Customized finish that can be easily integrated with the vehicle's interior fittings.



Modular, Flexible & Simple Architecture

Installation on any vehicle door configuration with minimal cabling.



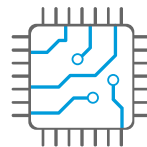
Low Maintenance

Effortless and simple, so you can invest your money elsewhere.



Quick & Easy Installation

Ingenious "bolt-on design" that allows for surface or recessed mounting of the counting system.



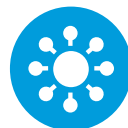
Compact Passenger Counting Computers

Hidden behind the vehicle's inside panels or easily surface-mounted inside the vehicle.



Optical Door Detection

Build-in or door switch signal interface.



Standalone or Fully Integrated Systems

Infodev's equipment installed on the vehicle can operate independently of other onboard equipment or easily interfaced with it.



From Basic to Complete Software Portfolio

Software and web apps developed in-house by our team of experts.



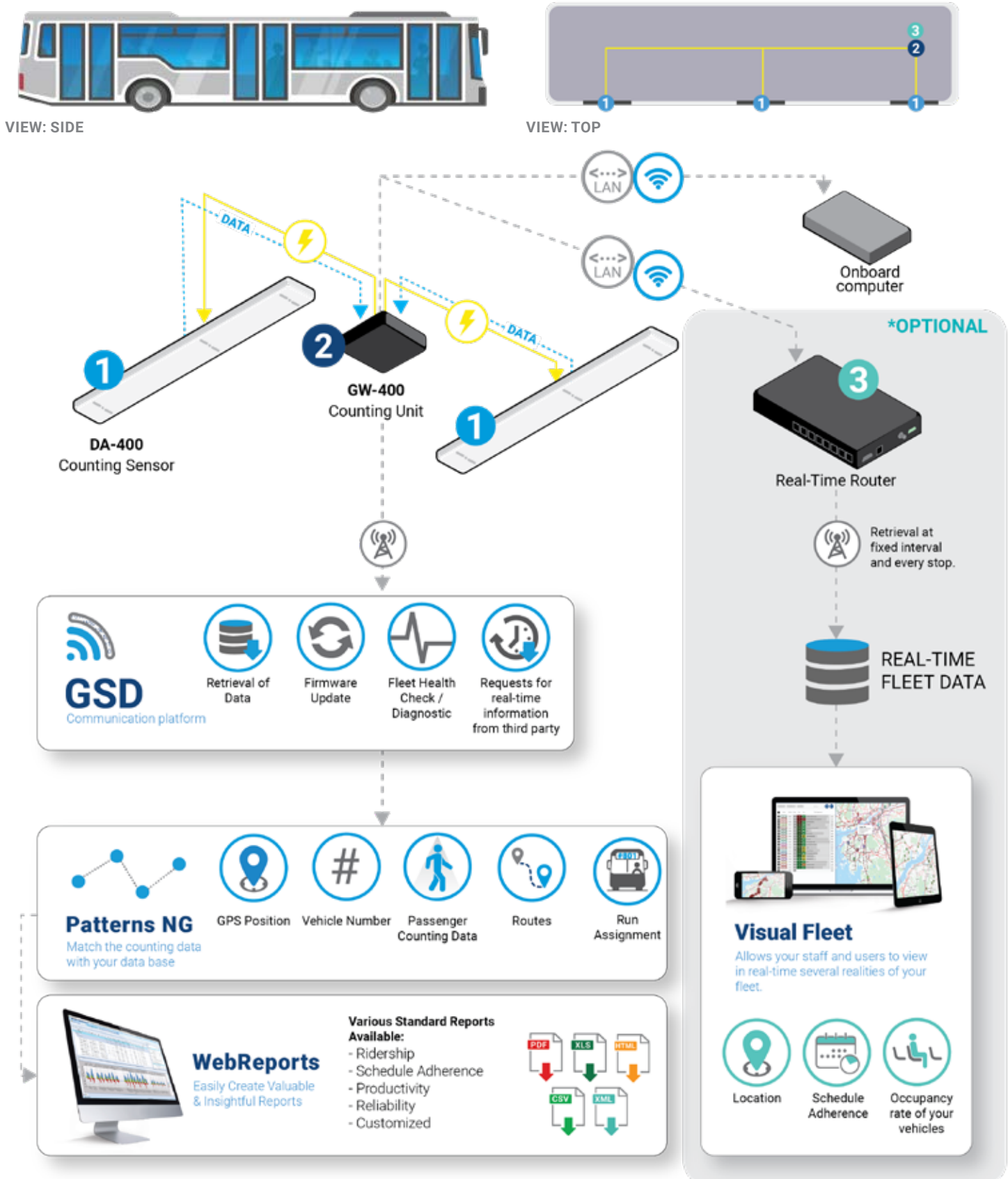
Antennas Installed Inside the Vehicle

High sensitivity GPS modules and high performance RF modems eliminate complications related to outside antennas.



Automatic Passenger Counting For Transit Buses

APC SYSTEM DIAGRAM





DA-SERIES

Counting Sensors

Infodev EDI's unique electro-optical technology uses an intelligent digital signal processing algorithm to accurately count passengers boarding and alighting public transit vehicles.

Our sensor uses its own invisible light source, in such a way that they are not affected by environmental conditions, as well as speed of passage or passengers standing idly under the sensor.

Once installed, our highly accurate sensors and system parameters do not require any costly post-processing on counts, data adjustment or correction factors commonly seen with other counting technologies used to enhance the system accuracy, making the cost of ownership very low. A diagnostic LED is also integrated within the sensors to report any problems.

The sensors special design can be easily adapted for quick surface mounting or inside panel placement on the overhead door panel. This type of installation gives the maintenance team easy access to the sensors for servicing.

The counting data produced by our sensors are associated with specific doors, time and location of every stop. This detailed combined data makes it possible to generate customized and very specific reports that provide a strong base for profitable decisions.



DA-400 SERIES

- Wide beams covering the door entrance
- No blind spots, up to three sensors integrated in a single bar
- Color matched to overhead panel
- 13.5 mm to 17 mm thick
- Optical door detection
- Industry standard certifications

DA-200 SERIES

- Very compact, unobtrusive design
(only 3.6 in. X 1.5 in. x 1.22 in.)
- Designed to fit various door types
- Water tight, sealed robust metal casing and electrically insulated internally
- Industry standard certifications





Automatic Passenger Counting For Transit Buses



GW-SERIES

GATEWAY COUNTING COMPUTERS

These compact onboard counting computers are fully autonomous and can be easily connected to other existing onboard computers. They are installed inside the vehicles, usually one per vehicle. Its built-in power supply can adapt to a wide range of voltages.

At each stop or station, the Gateways receive the signals from the DA-400 and DA-200 and transform them into counting data. The data is then stored in the Gateway's memory until it receives a download command. The data is usually transferred via a wireless module (or GSM, or LAN) directly to the ground data analysis server. This saves on cabling costs and installation time.

The compact Gateways are easily hidden behind the vehicle's inside panels.

Communication Options

- Ethernet-LAN;
- 802.11 b/g;
- Cellular GPRS/GSM;
- WiFi;
- Long-range RF, 2.4 GHz spread spectrum;
- J1708, Serial RS-485/RS-232;
- Other options available





SOFTWARE & APPS

OVERVIEW

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R E S E A R C H I N C .

Patterns NG

Useful Data When You Need It

15 years of practical deployment has allowed Infodev to create Patterns. A software that pairs the data from the APC system to the client's database information. It resolves the difficult challenge of reading and matching schedule, trips and routes from external database with the data collected by the APC System (boarding and alighting counts as well as GPS positions).

WebReports NG

Efficiently Create Valuable & Insightful Reports:

A powerful and flexible web reporting tool that will provide detailed presentations of transit operations. Tables and graphs are used to analyze and forecast the counting data and schedule adherence. In addition, it gives access to a wide variety of performance reports (KPIs) specially designed in collaboration with experts and clients through the years.

* This software works in sync with Patterns

Visual Fleet NG

Visualize in Real-Time the status of your fleet:

This latest Infodev's Web application allows transit operation teams to visualize the fleet in real time. Various data about location, schedule adherence and occupancy rates are displayed on a city map in real time.

The data available through this Web app is an essential tool for smart cities and transit organization to help improve customer experience.

Already have your own software running? Or want to build your own?

Infodev's Application Programming Interface (API) uses Infodev's expertise in processing and matching data to deliver accurate, powerful, versatile and easy to use information. Infodev's API simplifies the software integration process, while providing more accurate results adjusted to schedules and overall operations.

This means an easy access to all the necessary data to create beautiful and user-friendly apps for users from operations employees to transit passengers.



Contact us

Infodev EDI head office is located in Quebec City, Canada, with a regional office in Europe. For more information regarding our technology and our most recent achievements, please contact us.



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