| SISTRAM Project, an Complete Solution for the Guatemala City Public Transport<br>Problem |                    |                          | Contractor              | ANZUETO & ASOCIADOS<br>and Consultant Engineers |
|--|--------------------|--------------------------|-------------------------|---|
| LOCATION   |                    | YEAR                     |                         |   |
| Guatemala  |                    | PROFFESIONAL<br>SERVICES |                         | CONSTRUCTION (if applicable)                    |
|  |                    | 2007 - 2009              |                         |   |
| PROJECT OWNER INFORMATION  |                    |                          |                         |   |
| a. PROJECT OWNER   | b. CONTACT         |                          | c. CONTACT PHONE NUMBER |   |
| MAPRISA  | Ing. Rubén Bonilla |                          | +502-2331-9202          |   |

PROJECT REPORT (reach, size and cost)

**Project Background** – Guatemala City has experienced during the last 30 years an explosive non planned growth that has created a public transport and traffic problem, parking space shortage, air pollution and excessive fossil fuels consumption. Lately there is also a security problem dealing with economic losses due to extortion to the bus operators and passengers robberies. Five years ago MAPRISA, Anzueto y Asociados sister company began to work on the search of feasible solutions for this problems and developed a management plan for the public transport system which included an Automatic Fare Collection System, a Automated Bus Dispatch System, a GPS Monitoring System and the integration on the buses of a video surveillance system. The solution did integrate MAPRISA, Rosmo, CODACA, GPS de Centroamerica and CARDTECH companies in the project, these



companies have the necessary experience and have developed locally appropriate technology.

Automatic Fare Collection System – The Automatic Fare Collection System uses last generation smart cards and its readers, point of sale equipment and the back office system for integration with the banking system and bus operation owners. Not having to carry cash on board, robbery and loss risks are minimized, control over cash is improved securing bus owners revenue and tax collection.

## Project Key Elements

- Technical and Economic Feasibility Studies
- > Public Transportation
- Automatic Fare Collection Systems
- Automated Bus Dispatch System
- > GPS Technology Applications
- Security Video Surveillance Solution
- Project Management

The bus – A prototype was built using a Japanese

chassis by Hino, a proven quality chassis with local spares inventory and service shops. The coach, built by Rosmo, uses proven appropriate technologies tested for more than 30 years in the Central America region.

Automated Bus Dispatch System - Using the Automatic Fare System information and a GPS Monitoring System a technically improved dispatch system was designed for an efficient operation throughout the day. Video Surveillance cameras will help decrease the rate of crime inside the buses and bus stops.

**SISTRAM** a complete solution – The planned system is an integral solution with the necessary financial support, buses and all electronic and data processing equipment and software and will give to the users an improved service, to the owners an technically supported efficient operation with economic and environmental benefits for the city.

For more information you can visit www.sistram.net (in Spanish).

