

The Smart Bus System

The smart bus system (AVL - Automatic Vehicle Location Communication System) is a GPS (Global Positioning System) based management and communication system.

LTC first employed AVL (sign post) technology in the mid-1990s. Effective 2008, the technology and system was significantly upgraded moving from sign post technology to GPS based technology. Features of the updated system include:

- ✓ automatic "in-vehicle" visual displays of next stop locations
- ✓ automatic "in-vehicle" audio announcements of next stop locations
- ✓ automatic external audio announcements of route name, direction and destination
- ✓ real time service information featuring
 - ✓ automatic on-street information signs with real time information for next buses (10 strategic locations)
 - ✓ interactive, telephone voice response (IVR) with real time information for next buses and travel planning
 - ✓ real time schedule information via LTC's website (WebWatch)
- ✓ tracking of in-service buses along routes via GPS providing a more accurate tracking of bus locations
- ✓ automatic passenger counters (currently on 80 of 192 buses and all new vehicles will be equipped with the counters) supporting better service planning
- ✓ traffic signal priority allowing the bus (based on schedule adherence) to interface with the City's traffic light system

The Business Case for Smart Bus

The development of the smart bus system is consistent with the direction of LTC's Long Term Growth Strategy and Business Plan.

The \$6.5 million cost of the system was fully funded by the provincial and federal governments.

Smart bus technology is critical to building an effective and efficient transit system. The technology supports improved customer service and service delivery through:

- ✓ enhanced monitoring/management of "on-street service" – i.e. service issues, schedule performance etc. supporting improved service to the customer
- ✓ better (current and timely) service planning data – i.e. passenger loads and schedule performance etc.
- ✓ use of traffic signal priority supporting improved system efficiency which is critical to London's Bus Rapid Transit strategy
- ✓ customer access to real time service (schedule) information via IVR (accessed 0.4 million times per year), WebWatch (website accessed 5.2 million times per year)
- ✓ in-vehicle communication to passengers of route identification, direction and next stop

