AGIL®

PASSENGER INFORMATION SYSTEM

ST Engineering

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Keeping passengers safe and informed is key to providing an efficient and reliable metro service. To improve communications between metro operator and commuters, Passenger Information System needs to deliver timely information to enhance commuter travel experience.

Connecting with Commuters

AGIL Passenger Information System (PIS) harnesses digitalisation with advanced connectivity and display technology to provide a wealth of information to improve commuters' route planning and enrich their journeys. Besides real-time travel and safety information, announcements and commercial messages, the PIS facilitates seamless communications between the train driver/operator and commuters, during emergency and incident response.

AGIL Passenger Information System includes

- Train Traveller Information System (TTIS)
- Passenger Announcement and Communications System (PACS)
- Train-borne Wireless System (TWS)
- Train-borne Video Surveillance System (TVSS)
- Automated Real-time Passenger Counting System (ARPC)

1 Train Traveller Information System (TTIS)

The TTIS integrates electronic information and entertainment to bring real-time passenger information, entertainment videos and commercial advertisements to passengers. It displays commuter-centric information such as current and next station, train arrival and departure times, live and ad hoc messages, as well as other useful content such as places of interest, daily public events and weather data. The system provides easy content creation and display customisation through a web-based browser application with predefined templates.

The TTIS consists of

- LCD Dynamic Route Map Display and Public Information
- LED Displays in Train Interior and Exterior
- LCD Display for Public Content and Entertainment
- Media Player and Video Distributor
- Content Creation Terminal

2 Passenger Announcement And Communications System (PACS)

The PACS integrates both communications and public announcement solutions onboard the train based on an Ethernet communications backbone. It enables communications between the passengers, train driver and operator in the Operation Control Centre (OCC). It also manages public announcements from the train driver and the OCC, as well as automated pre-recorded announcements of station information and messages for passengers.

The train-borne PACS uses digital Voice Over IP (VoIP) technology to achieve superior voice quality for audio streaming, with no single point of failure. It is also designed to connect with legacy equipment and systems using serial interfaces such as RS-485, RS-232, CAN bus, MVB and dry contacts, and other proprietary protocols such as IPTCOM and CIP.

The PACS consists of

- Train Communication and Control Unit
- Public Address Control Unit
- Train Operator Control Panel
- Passenger Emergency Intercom (award-winning product)

3 Train-borne Wireless System (TWS)

The TWS provides seamless data transfer between the train and trackside systems using Wi-Fi. It adopts the latest transmission standard IEEE 802 11 n/ac MIMO and provides reliable mobile wireless broadband connectivity with high throughput rates to support applications such as Communications-based Train Control (CBTC) and live video streaming using Real Time Streaming Protocol (RTSP). The TWS provides seamless integration with all train and station systems by supporting all common Ethernet standards and protocols.

The WS consists of

- Train-borne Wireless Clients
- Trackside Wireless Access Points
- Trackside Wired Backbone Network
- Wireless Controllers

4 Train-borne Video Surveillance System (TVSS)

The TVSS enhances public safety by allowing real-time security monitoring at the OCC. Live video from inside and outside the train is streamed to the train driver console and the OCC, and recorded by a Network Video Recorder at all times during train operations. The fully digital surveillance system is web-based for easy remote management.

The VSS consists of

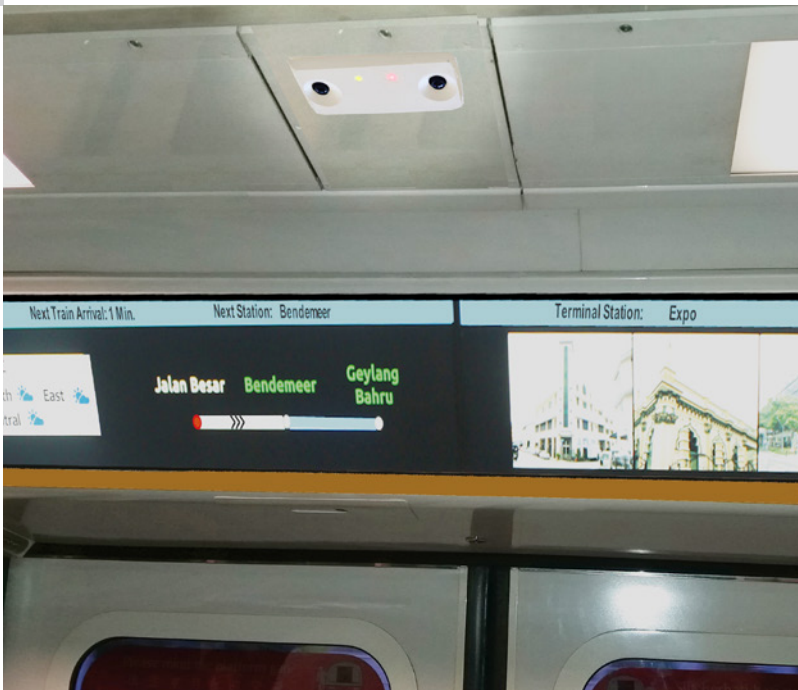
- IP Cameras
- Train Video Display
- Network Video Recorder
- TVSS Agent
- TVSS Gateway
- TVSS Server
- Enhanced Playback Station

5 Automated Real-time Passenger Counting System (ARPC)

The ARPC provides passenger loading information on a train with up to 98% accuracy. It sends real-time information on passenger capacity of each car and train to the operators who can dynamically regulate train schedules and inform passengers at the station platform on areas that are less crowded, offering more effective and efficient crowd management.

The ARPC consists of

- 3D Camera
- APRC Controller



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