Public Transportation:

| **Product code** | CZK-PublicTransport |
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| **Hardware Platform** | Edge: Nvidia Jetson Series, Sophgo Micro Servers  Central: Nvidia H100, L40, RTX 4000 Series, RTX 5000 Series Ada, A16, A30, Sophon AI server |
| **Operating System** | Ubuntu, MS Windows |
| **Management Interface** | Web-Based Management Software |
| **Database** | PostgreSQL |
| **Development Approach** | Microservice, containerized |
| **Frontend** | React |
| **Backend** | Python |
| **3rd party Integration** | 3rd Party API Integration  Camera Support: RTSP, ONVIF |
| **Keywords** |  |

**Specific Video Analytics Applications:**

* **Passenger Counting** – Tracks public transport usage.
* **Security Threat Detection** – Identifies potential risks.
* **Crowd Density Monitoring** – Helps manage peak-hour congestion.
* **Abandoned Luggage Detection** – Detects unattended bags in stations.
* **Access Control with Facial Recognition** – Enables secure ticketing, dynamic verification for driver.
* **Vehicle Monitoring** – Tracks buses, trains, and transport fleets.
* **Driver Behaviour Analysis** - Fatigue driver detection, Seat belt detection, Phone call detection, Blocking detection, Driver sleeping detection,
* **Pothole Analysis** - Detect potholes on the road

**Key Benefits:**

* **Passenger Flow Optimization** – Tracks congestion to improve scheduling.
* **Security Threat Detection** – Identifies unattended bags or suspicious behavior.
* **Access Control Automation** – Uses biometric authentication for ticketing.
* **Vehicle and Fleet Tracking** – Improves transportation efficiency.