

- | | |
|------------------------------|--|
| 11 Five-axle eighteen-wheel | Five-axle, two-unit full cargo trailer |
| 12 Six-axle twenty two-wheel | Six-axle, two-unit semi-cargo trailer |

3.4 Data analysis and processing

Automated program for data management is designed and built for effective data management and error data is identified with incomplete data corrected based on a variety of error identification standards, providing systematic data management. Reliable analysis of data is conducted to produce AADT in coverage survey stations by applying daily, monthly and yearly correction factors and floating rates of permanent survey stations. Statistics data consist of years of data on the basis of road class, year, vehicle type, time and direction.

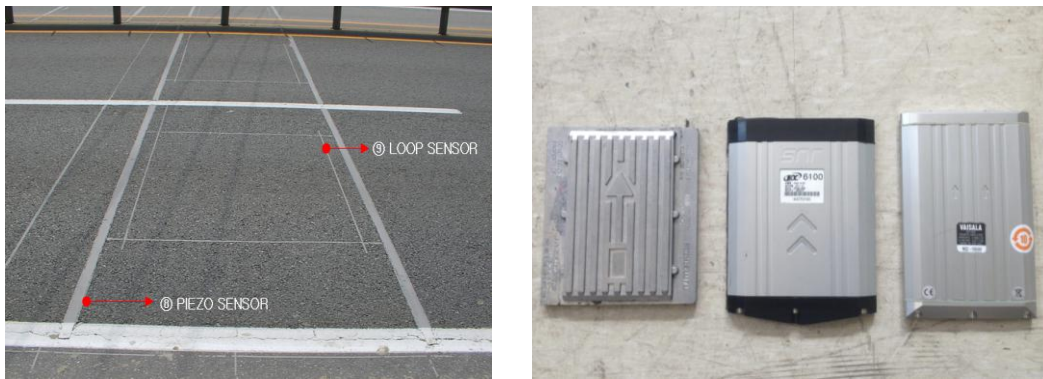
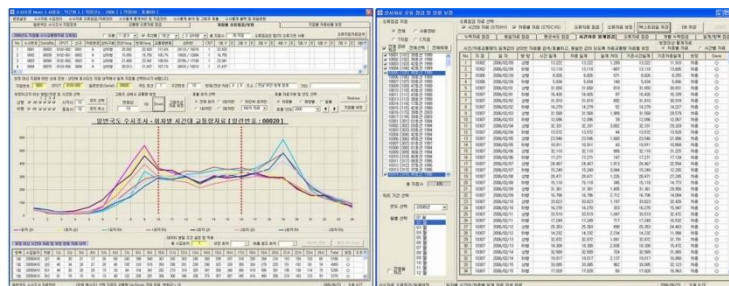
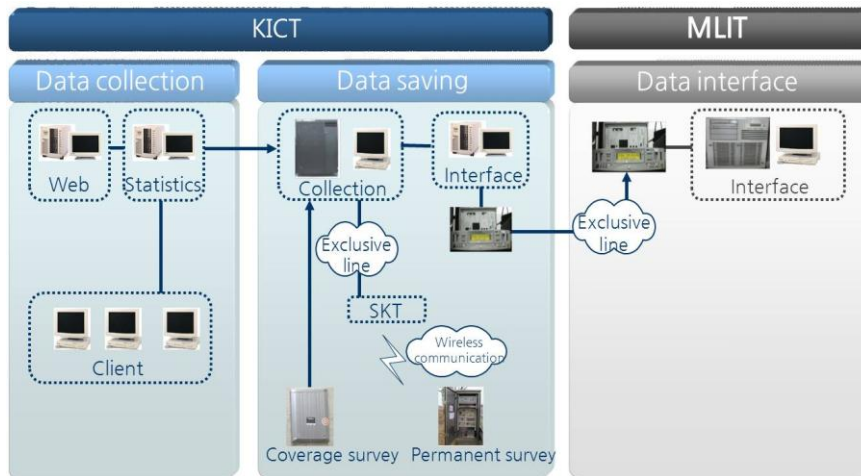


Figure 1. Traffic monitoring system: Data collection



Data Analysis

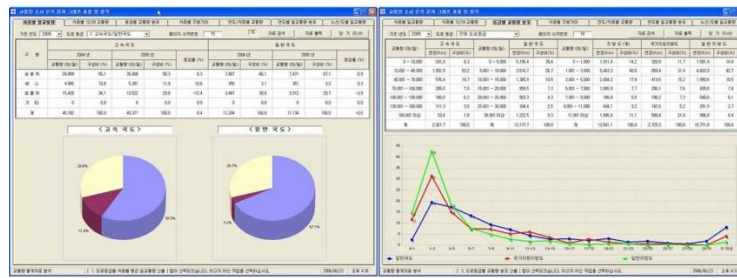


Figure 2. Traffic monitoring system: Data processing

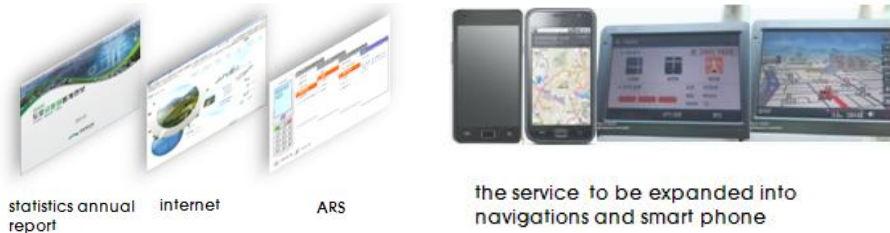


Figure 3. Traffic monitoring system: Providing information

3.5 Information provision

Traffic volume statistics annual reports provide yearly analysis results of traffic volume based on road class, sections and vehicle types while also providing annual average daily traffic, average daily traffic, five-year statistics based on the publication year, monthly correction factors and daily correction factors. Past statistics data, traffic of each vehicle based on 12 classes of vehicle classification and survey location information using electronic maps, which are not included in the annual reports for lack of space, are provided on the website, www.road.re.kr. Traffic information is provided via ARS 1333 regarding expressways, roads, downtown streets, railroad, passenger ships, express buses, and intra-city buses.



Main page of www.road.re.kr

Statistical Yearbook of Traffic Volume

Figure 4. Information provision

3.6 Use of traffic data

Traffic data is used as important source for planning and designing the traffic and road and environment. The use is as in Table 5. Traffic data by vehicle class is more important in road management.

Table 9. Use of traffic data

Area	Use
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Traffic plan	Traffic demand forecast & verification, national road network plan, traffic facility investment evaluation, preliminary feasibility study, determination of priority in structuring ITS
Road plan	Road network plan, determination of investment in road and priority, bypass road plan and pavement plan
Road design	Service quality analysis, analysis of required number of lane, yield lane, tollgate on expressway, other road facilities
Road management	Road expansion and pavement overlay, determination of overloaded truck inspection point
Road environment	Exhaust gas estimate, noise barrier wall

3.7 Future plan

Currently, road traffic annual statistical report provides the traffic data on expressway, national road and local road but the use of traffic data base been reduced due to lack of spatial continuity. The demand for urban road traffic data has been increasingly growing and to deal with such demand, traffic data in urban road needs to be additionally collected and provided to satisfy the user' s deeds. Many municipal governments have established ITS and collected traffic data on urban road and the traffic data using such urban traffic will be provided.

The cost of AVC equipment used for permanent count is ¥40 mil /unit which is too high to be distributed generally. Thus coverage survey conducted by municipal governments is carried out manually and lack of skill and professionalism may lead to low reliability of the data. The Ministry of Land, Infrastructure and Transport has been pushing for developing diffusion model.

4. CONCLUSIONS

The Ministry of Land, Infrastructure and Transport established the guideline for investigation of road traffic (The Ministry of Land, Transport and Maritime Affairs, 2009) and developed definition of permanent and coverage survey, scope and location of count. To effectively implement input the traffic data on national highway and local road and identify the data in past, it developed the traffic investigation operation service system, which enables to collect and provide the traffic data collected by municipal governments via Internet. According to current Act on Road, the road is categorized into expressway, national highway, special & metropolitan area road, local road, city road, gun road and gu road. Traffic count system introduced in this study could be applied to permanent and coverage survey on expressway, national highway and local road. This road traffic information provision system is expected to help better understand the road traffic data as well as use them in more efficient way.

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