Session: Dynamic Map

Dynamic and integrated database of road network and surroundings

October 27, 2015

Moderator: Jun Shibata,

Japan Digital Road Map Association





Dynamic Map (1)

 Idea of Dynamic Map (DM) is based on integration of multiple Local Dynamic Maps (LDMs) at Central ITS Station or DM Center





Example of Dynamic Map Center

Data Source

Dynamic Data

- ✓ Traffic Jam
- ✓ Traffic Accident
- ✓ Road Condition
- ✓ Signal and Sign
- ✓ Traffic Restrictions

National/local government, Police, Road Companies

Static Road Structure



✓ National Road



- ✓ Local Road
- Availability of data
- Precision, Reliability, Coverage
- Freshness, Real-time property
- Location reference
- Data format

Data Structure

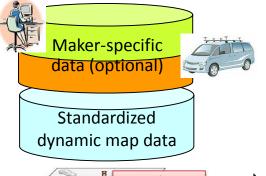
Data Delivery

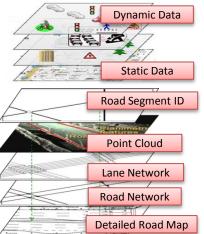
vehicle

vehicle

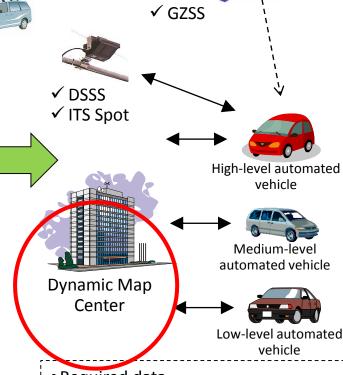
GNSS

✓ GPS





- Easy to store
- Easy to maintain
- Easy to access
- Standardization area



- Required data
- Use case
- Required precision, reliability, and freshness
- Separation of standardization and competition areas



*Source: Prof. Hiroaki Takada, Nagoya University (2014.11.17. SIP-ADUS WS, Tokyo)

Dynamic Map (2)

 While LDM was invented for C-ITS, **DM will support Automated Driving** Systems in addition to C-ITS and advanced road/traffic management systems with lane-level accuracy, 3D features including Lidar* data, vehicle-sensor data, probe data, ...

*Lidar=Laser Imaging Detection and Ranging





END



