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**NATIONAL STANDARD OF THE
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GB/T 20607-2025

Replacing GB/T 20607-2006

Intelligent transport systems - Architecture - Services

智能运输系统 体系结构 服务

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document replaces GB/T 20607-2006 "Intelligent Transportation System Architecture Service". Compared with GB/T 20607-2006, Apart from structural adjustments and editorial changes, the main technical changes are as follows.

a) The term and definition of "Intelligent Transportation System" have been added (see 3.1), while the term and definition of "Intelligent Transportation Service Entity" have been deleted (see 3.1).

(2006 version 2.3)

b) Change "ITS Architecture Service Layer Reference Model" to "Layer Reference Model" (see Chapter 5, Chapter 4 of the 2006 edition);

c) In the "Traffic Management" service area, "Parking Management" was changed to "Parking Management and Services," and "Traffic Environment Monitoring" was removed.

"Control" services (see Chapter 5, Chapter 4 of the 2006 edition);

d) The "electronic toll collection" service area has been expanded to include "infrastructure usage fees," "transportation service fees," and "value-added service fees." the "Electronic Payment" and "Electronic Payment Integration" services have been removed (see Chapter 5, Chapter 4 of the 2006 edition).

e) The service area of "Traffic Information Services" was changed to "Travel Information," and "Public Transportation Information Services" and "Driver Information Services" were added.

The "Personalized Information Service" has been removed, along with "Pre-trip Information Service," "Driving Driver Information Service," and "Roadside Public Transportation Information Service." "Public transportation information services" and "personalized information services" (see Chapter 5, Chapter 4 of the 2006 edition);

f) The service area of "Intelligent Highways and Safe Driving Assistance" was changed to "Intelligent Roads and Safe Driving," and "Vehicle-Road Information Coordination" was added.

The services "Safe Driving" and "Vehicle Platooning" have been removed, along with "Intelligent Highway Information Provision," "Safe Driving Assistance," and "Vehicle..." "Autonomous driving" and "autonomous fleet operation" services (see Chapter 5, Chapter 4 of the 2006 edition);

g) The service area "Transportation Safety" was changed to "Traffic and Transportation Safety," and "Emergency Response," "Transportation Safety," and "Intersections" were added.

The "Safety" service has removed the "Emergency Rescue Management," "Transportation Safety Management," and "Intersection Safety Management" services (see section 5).

Chapter 4 (2006 edition);

h) The "Transportation Management" service area has been expanded to include "Public Transportation," "Long-Distance Passenger Transport," "Urban Rail Transit," and "Taxi (including online booking)." "Car rental", "shared transportation", "freight transportation", "special transportation", "low-altitude transportation", "motor vehicle driver training", "motor vehicle repair" the "integrated government services" service has removed "transportation administration," "public transport operation management," "long-distance passenger transport operation management," and "rail transit." Services including "Operations Management," "Taxi Operations Management," "Freight Transportation Operations Management," and "Special Transportation Management" (see Chapter 5, 2006).

Chapter 4 of the edition);

i) The "Integrated Transportation" service area has been expanded to include "Integrated Passenger Hub Services," "Integrated Freight Hub Services," and "Integrated Transportation Operation Monitoring." "Measurement" and "Cross-regional traffic monitoring and forecasting" services (see Chapter 5, Chapter 4 of the 2006 edition);

j) Change the service area from "Transportation Infrastructure Management" to "Transportation Infrastructure" and add "Transportation Infrastructure Operation" to the

service.

The categories "Traffic Monitoring," "Traffic Infrastructure Maintenance," "Comprehensive Transportation Management," and "High-Grade Highway Service Area Management" have been updated, while "Traffic Monitoring" has been removed.

Infrastructure monitoring and maintenance; road administration services (see Chapter 5, Chapter 4 of the 2006 edition);

k) The "ITS Data Management" service area was changed to "Data Management," and "Data Application Service" and "Simulation Computation" were added to the service.

The "Decision Support Model Management" section has removed the "Data Processing," "Data Application Support," and "Data Security" services (see section 5).

Chapter 4 (2006 edition);

l) The service areas of "Information Infrastructure," "Sustainable Transportation," and "Information Security" have been added (see Chapter 5);

m) The intelligent transportation system service sector has been expanded to include "information infrastructure services," "sustainable transportation services," and "information security." "Full service scope" and a brief description (see Chapter 6);

n) Change "Parking Management" to "Parking Management and Services" (see 7.2.7, 6.1.8 of the 2006 version);

o) The "Traffic Environment Condition Monitoring and Control" service has been removed (see 6.1.6 in the 2006 version);

p) The relevant content regarding "transportation service charges" and "value-added service charges" has been added to the electronic toll collection service area (see 7.3.2 and 7.3.3);

q) The phrase "transportation information services" was changed to "travel information services," and the corresponding content was modified (see 7.4, 6.3 of the 2006 version);

r) Changed "Intelligent Highway and Safe Driving Assistance Services" to "Intelligent Road and Safe Driving Services" and made the corresponding changes.

Contents (see 7.5, 6.4 of the 2006 edition);

s) The phrase "transportation safety services" was changed to "transportation and logistics safety services" and the corresponding content was modified (see 7.6).

(2006 edition 6.5)

t) The transportation management service sector has been expanded to include "shared transportation," "low-altitude transportation," "motor vehicle driver training," "motor vehicle repair," and "government-related services." the service content in sub-fields such as

"integrated service" (see 7.7.5, 7.7.8~7.7.11);

u) The integrated transportation services sector has been expanded to include "integrated passenger transport hub services," "integrated freight transport hub services," and "integrated traffic operation monitoring." Sub-field services such as "Cross-regional traffic monitoring and forecasting" (see 7.8.4~7.8.7);

v) The following have been added to the transportation infrastructure services sector. "Transportation Infrastructure Operation Monitoring," "Comprehensive Transportation Management," and "High-Grade Highways." Service content in sub-fields such as "Service Area Management" (see 7.9.1, 7.9.3, and 7.9.5);

w) Sub-fields such as "Data Application Services", "Simulation Computing", and "Decision Support Model Management" have been added to the data management service area.

Contents (see 7.10.4~7.10.6);

x) Added content related to the information infrastructure services sector, the sustainable transportation services sector, and the information security services sector (see 7.11~7.13).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Intelligent Transportation Systems (SAC/TC268).

1 Scope

This document specifies the main service areas of intelligent transportation systems, the general principles of services, the hierarchical reference model, and the service areas of intelligent transportation systems.

Intelligent transportation system services across various service sectors.

This document applies to the development, application, and implementation of intelligent transportation system services and related services.

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

Intelligent Transportation Systems Based on a relatively complete transportation