Construction Thought and Promotion Path of One-off Dialing Service of Transportation Service Supervision Telephone

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Abstract. As the transportation industry has the characteristics of multi-level, cross-regional, and cross-domain, and taking into account the public welfare attributes of service supervision telephones, the construction of 12328 telephones has a strong system, integrity, and coordination. It is necessary to use the 'coordinate all the activities of the nation as in a chess game' mentality, unified planning, unified deployment, unified standards, and unified promotion of 12328 telephone construction. The construction process must be led by the government and promoted throughout the country. Overall, the 12328 telephone construction promotion path is through the comprehensive integration of top-level designs in different dimensions, such as informatization, standardization, and institutionalization, in order to realize the national traffic and transportation service supervision telephone ‘12328’ one-off dialing service, the provincial and municipal data networking and sharing, and business and system collaboration.

Keywords: One-Off Dialing Service, Unified, Synergy, Architecture, Train of Thought

1. Introduction
Based on drawing lessons from foreign governments to promote the development of information engineering and summarizing the construction experience of 12366, 12306 and other special service codes for public welfare in China, 12328 telephone construction integrates different dimensions of top-level design of the information, standardization and institutionalization, as well as data management, to form the three-level network operation information system. The 12328 telephone was fully opened in 2014, the national network was achieved in 2015, and the data was automatically submitted step by step in 2016. At present, it has achieved stable operation, and information analysis and comprehensive application are carried out through data analysis to play a driving role in strengthening the industrial governance capacity and improving the service level of the industry [1-3].

2. Development Foundation
Since the 1990s, the provincial and prefectural governments and the competent departments of transportation have successively opened transport service hotlines under the people's strong demand and the internal trend of government management mode change, which has play a positive role in
promoting the industry service quality. However, due to the lack of overall planning, different basic conditions and the telephone systems in different regions have large differences, it is inconvenient for the masses to use, embodying as follows:

(1) The road transport system of each province and city has its own service number, which is inconsistent with the growing trend of trans-provincial and municipal transport business at that time;

(2) The telephone number of each field is not uniform. Telephone are not unified, which is inconvenient for the public to remember and recognize. Take Beijing as an example, the relevant hotlines of road transport are 96166 (traffic services), 63176255 (road administration services), 68351150 and 68351570 (traffic convenience) and other hotlines. Many service hotlines exist so that the public is difficult to judge which telephone number to call when encountering problems;

(3) Different service scopes. In terms of function, some telephone services focus on traditional road transportation services, such as passenger and cargo transportation, automobile repair, driving training and testing. Some telephone services include the added taxi passenger transport, urban public transport and other urban businesses after the large ministry reform, some telephone services cover the road administration businesses in the road field, and service ability difference is obvious [4].

(4) Development and utilization of insufficient information resources. The telephone systems in each region and each field are relatively closed. The service supervision information is scattered and difficult to be analyzed and effectively used, and it has the limited support for industry supervision and lacks of overall grasp of social conditions and public opinions. Service is only a form, and it is difficult to achieve the integrity and unity of the whole social transport service supervision system. In addition to the above situations, after further investigation and demonstration. It is found that there were many problems in the field of transportation service telephone at that time, such as inadequate guarantee of construction funds, inadequate quality of personnel (telephone operators), irregular business procedure, unclear division of responsibilities and insufficient technical support. These problems are the key to the above situations, so the unified telephone number, standard service procedures and service standards shall be improved [5].

3. Construction Thoughts

With the advent of the Internet era, the foreign information construction has gone through a continuous and rapid reform. Through studying the information engineering promoted by foreign government departments, top-level design, unified standards, public orientation, efficient information flow, scale effect and synergistic effect are shown basically. Germany has regarded the e-government construction as a national strategy, and the chief information officer (equivalent to the minister) assumes overall responsibility of the e-government work of the Federal government. Main responsibilities are to formulate information standards, conduct the horizontal data connectivity between ministries and commissions, vertical connectivity between federal and state data to achieve data sharing. Most state and local governments also implement this model, unifying standards and services, and adhering to public demand orientation. The United States depends on the DOT (Department of Transportation) and other agencies to open up traffic data from multiple levels and sources, setting up the BTS (Bureau of Transportation Statistics) and other professional analysis departments, and providing visitors with the comprehensive traffic data inquiry service according to regions, time and travelling [6-8].

The dominant ideas of e-government construction are to establish a “citizen-oriented” government, strengthen trans-department cooperation to integrate resources and to better meet the needs of citizens; especially in the process of integrating government service websites, the diverse service needs of citizens are met from the unified government portal website form of expression, theme classification, simplified column setting, and improving the interaction between the government and the people.

The information engineering construction promoted by the governments of the above countries has provided a good reference for the construction of 12328 telephone system. In the process of the construction of 12328 telephone system, attention is paid to “platform awareness”. Through the construction of a unified national information interaction platform, the basic environment for the three-level network operation of the ministry, province and city is formed to exchange trans-provincial
data and achieve the collaborating processing of businesses. In terms of institutional improvement, we will enhance the top-level design, promoting the overall development of country, formulating the unified business flow, service specifications and technical standards, and promoting the efficient circulation of information. In the process of running, we will innovate the service management mode of the industry according to the public demand, establishing the information analysis system, focusing on the hot spots, difficulties and focal issues of the industry according to the analysis of primary data to provide reference for responding to the concerns of the public and assisting the decision-making of industry [9-12].

The following aspects can reflect the promotion of ideas:

1) Unified service channel
   The goal of "12328" as “One-off Dialing Service” of the relevant business field and communication channel of the transportation industry has been achieved. At present, the people can dial the telephone number “12328” directly in any place in the country with a telephone signal to connect 12328 telephone in the city where you are located. If it is added with an area code, you can call through the 12328 telephone across the city. Smooth and convenient channels for popular sentiment reflection and information service are built to solve the problems such as: discrepancy in the service supervision number of transportation industry, inconvenience for people to complain and report information [13-15].

2) Coordination of information and business
   The unified design is conducted from the aspects of operation structure, service specification, standard construction and other aspects according to the telephone business closed-loop management process of "unified acceptance, classified transfer, timely tracking, reply to feedback, filing, random inspection and return visit", which can ensure the coordination of telephone information flow and business handling, including the construction of the national basic universal 12328 telephone system. Combined with the construction of standard specification system, the unified business process specifications, overall technical requirements, business classification and coding standards, data exchange standards and system interface technical requirements, statistical index system and the standards of knowledge base data element are formulated. On the basis of the above, the three-level networking operation system of the ministry, province and city, as well as the telephone service database and decision analysis system are formed, which can ensure the information interconnection and collaborative business processing, and form the ability of information feedback service and decision support [16-18].

3) Institutional guarantee
   The telephone service standard operation and the telephone system service quality are guaranteed through system design. In the early stage of construction, the management system of the transportation service supervision telephone 12328 was formulated to solve many problems such as: unbalance of the telephone system construction in different regions, uncoordinated regional progress, the guarantee of funds out of place, inadaptation of personnel quality, not standardized business process, undefined assignment of responsibility, insufficient technical support capacity, and the work flow of 12328 telephone was standardized to achieve the standardization, normalization and coordination of services, technologies and management.

   Through the establishment of the monthly appraisal system of telephone system service quality, the effective stimulation and restriction system has been established to fully mobilize the enthusiasm of transportation departments at all levels, 12328 service centers and transportation operation and service units and to enhance the coordination of system construction, operation, management, service and other links [19].

   Combined with the setting of the personnel training system, the training objectives, training requirements, training content and reference hours of the personnel in the call center are clearly defined to ensure the necessary business quality and basic skills of the personnel in the call center. It is necessary to focus on the training objectives, training requirements, training content and reference hours of the personnel in the call center, and to improve the overall operation quality and service effect
(4) Technical support

As an important information interaction platform, the ministerial level application platform shall solve the problems of interconnection and data exchange and sharing between the systems at all levels of the ministry and provinces and different business departments such as highway, waterway, urban road, road transportation and maritime affairs departments and to achieve the integration and unity of all departments involved in the telephone system, so a call center intelligent matching system with automatic selection function has been developed to support different brands and models of call center equipment in each region, and to lay a foundation for the achievement of the interconnection and inter-working between provinces and cities of 12328 telephone, and to meet the requirements of efficient, stable and reliable operation of the supervision telephone system of national transportation service.

At the same time, the ministerial-level platform has expanded data support through information connectivity and business collaborative processing, and improving the ability of information service and decision support. The knowledge base has been built synchronously to improve the ability to respond in real time through technical means, and to improve the accuracy and professionalism of response, and to ensure smooth and convenient information channels.

(5) Data application

A reporting, analysis and release system of national 12328 telephone information has been established. According to highway, waterway, urban passenger transport, road transport, maritime affairs, water search and rescue, salvage and other fields, the operational index system of telephone classification has been improved and used in the classification and transfer of call center order.

Carry out the national 12328 telephone information analysis on a quarterly basis, make full use of 12328 telephone data to summarize, analyze and determine all kinds of accumulated information, so as to provide support for macro research, risk pre-warning and aid decision-making in the transportation industry.

4. Pushing Procedure

In general, the technical path for promotion is the comprehensive integration of top-level design in different dimensions, such as informatization, standardization and institutionalization, as well as integrated innovation in data management, in order to realize the unified standards, unified services, horizontal integration and vertical connection. The national 12328 telephone system is built into a transportation service supervision telephone system with unified functions, intensive and efficient system construction and coordinated system networking operation at the three levels of ministry, province and city. It can solve problems such as the inconsistency of service supervision numbers in the transport industry, the unimpeded channels for people to complain and report, and the inconvenience of asking information, achieve “One-off Dialing Service” for the supervision of transportation services, and improve the efficiency of public transport services and the recognition of the public. As a whole, it follows the promotion path and general plan of "first opening for response, then networking operation, and then comprehensive application":

(1) Opening for response: Application for approval and opening of the telephone number "12328"; design the structure of national 12328 telephone system, research and develop the national basic general software, ministerial platform and relevant technologies, formulate the construction guidelines, management measures and the corresponding general industry standards for the national 12328 telephone in provinces and cities in order to provide a unified standard for the hardware and software structure and data reporting unit of the three-level telephone system in provinces and cities, and technically ensure the coordination and interconnection of the telephone businesses among the ministry, province and city.

(2) Networking operation: Achieve automatic reporting and sharing of networked data step by step, achieve the automatic transfer of telephone services between provinces and cities, and cross-region and trans-department business collaboration; achieve the 12328 telephone open response
in all prefectures and cities;

(3) **Comprehensive data utilization:** Realize nationwide 12328 telephone operation; synchronously develop the automatic statistical analysis, decision support and presentation functions of telephone system, and knowledge base software, carry out the design of business classification index, and regularly carry out the telephone service information analysis, the service quality evaluation of system operation.

![Figure 1. Schematic diagram of promotion steps](image-url)

5. **Conclusion**

Due to the multi-level, cross-regional and cross-field features of the transportation industry, as well as the public welfare attribute of service supervision telephone, the systematicness, integrity and cooperativity of 12328 telephone construction are strong. It is necessary to adopt the idea of “a game of chess” to plan, lay out, standardize and push forward in a unified way. Its construction must be a process which is led by the government and promoted across the country.
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