

# The Information Management of Real Estates Registration Under the Background of Big Data

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**Abstract:** On the national real estate registration work is the hot topic of land and resources management. Informatization of real estate registration data and database integration also constantly learn from experience in practice. The current management of key and the difficulty lies in the real estate registration information management platform application and the development of service function, Under the background of this request in today's era of big data, based on the "cloud of land resources", Integrate the positive analysis and data linkage, Using big data thought makes the resources allocation reasonable, so as to realize intelligent management.

**Keywords:** Real estate registration, Informatization, Database, Basic platform of information management, Big Data.

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## 1. Introduction

The Temporary Regulations on Real Estate Registration has been officially implemented since March 1, 2015. It has been more than a year since the comprehensive implementation of real estate registration in 2016. All provinces and cities across the country have successively carried out real estate registration. Shaanxi Province has implemented the Detailed Rules for the Implementation of the Temporary Regulations on Real Estate Registration since January 1, 2016. At present, the integration of real estate registration institutions at all levels and the establishment of data databases have been basically completed nationwide; It is estimated that the real estate registration information platform covering the whole country will be basically built in 2017; It is planned to put the basic platform of real estate registration information management into operation in 2018, and basically form a unified real estate registration system. From the perspective of national law, real estate registration refers to the legal act that a special registration agency records the establishment, change and loss of real estate property rights in a special register (or in an electronic registration system) according to legal procedures, and it is also an important part of a national or regional property rights system. From the perspective of the masses, the implementation of unified real estate registration is the basic work of the government to protect citizens' personal property rights. On the one hand, obtaining legal identity through housing and other property registration means entering the vision of national legal protection, which can not only effectively ensure the security of property transactions, reduce fraud, but also maximize the legitimacy of the public's creation and pursuit of wealth; On the other hand, because the real estate registration is based on the citizen's ID card number, the real estate in different cities under the same ownership owner's name can be queried at the same time, and the capital flow, degree and trend of the real estate in different places can be monitored uniformly, so that all kinds of unknown properties will have nowhere to hide. In a sense, real estate registration is an act to protect citizens' vital rights, not an act of administrative power.

## 2. Integration of Real Estate Registration Data

Up to now, China has preliminarily completed the registration and issuance of land use rights for urban state-owned land, rural collective land, homestead and collective construction land. In the real estate registration data, the existing land, buildings, forests, woodlands, sea areas, etc. are mainly involved. The registration standards and application support platforms of different data are very different.

In order to establish a unified basic platform for real estate management, it is necessary to conduct a comprehensive design in terms of database integration, business process integration and information integration analysis, and build a real estate registration system with land as the core. In the integration of real estate registration data, database sharing between government departments is required to eliminate information islands under the "separation of data departments". On the basis of full respect and integration of the original historical data, cadastral data is taken as the base, and unified land coding is taken as the index, and loose coupling integration is used to expand the data of other types of real estate registration, so as to do a good job in data collection and avoid waste such as duplication of database construction.

At this stage, the compilation of unified code has achieved good results. The unified land code is used to establish the relationship between various data. After the functional integration is basically completed, data quality inspection is conducted to ensure the integration quality of real estate registration data. Through scientific setting of data quality inspection links and inspection contents, the structure of the integrated result data is complete, and the elements are clearly layered. The contents are complete and the relationship between the graphic accuracy and the spatial logic is correct, and then a unified investigation is carried out within the required time limit to ensure that the contradiction between the data can be effectively avoided, so as to form a unified real estate property right registry that is easy to query.

### 3. Analysis and Application of Real Estate Registration Data

The basic platform for real estate registration information management is a complex giant system that covers the whole country, runs through national, provincial, municipal and county applications, involves multiple real estate registration transactions, approval and management departments, and involves hundreds of millions of real estate rights holders. It is an important support and guarantee for the implementation of the unified real estate system. For the architecture of real estate registration information management platform, it includes the data source of real estate registration information, data extraction, data transmission and exchange, etc. It is not a simple archive, but only has the functions of registration entry and query output, which greatly wastes the original intention of the state to carry out real estate registration; It is a real estate registration data system platform based on the "Land and Resources Cloud" framework, using cloud computing technology and cloud service mode, intelligently expanding relevant data interfaces and information range codes, incorporating relevant real estate information in real time, and being able to do a good job in data statistics, analysis and application of real estate registration information.

Establish a complete real estate management registration, transaction, query, statistics and other information systems, realize the internal linkage of real estate with data standardization and technical standardization, attach importance to the monitoring and management of registration information, and share all data in real time and provide external services. In the information service system, it mainly realizes the sharing of all kinds of data, including the customization of service content, data extraction, and information release. Improve the efficiency of real estate management.

First of all, for the design of system architecture, the real estate registration information management system is mainly composed of the relevant support layer, data layer, platform layer and business layer under the relevant security guarantee. In the support layer, there are hardware, software and network operating environment to provide some support for the deployment of some systems; The data layer contains basic data, professional data, management data and form data; The platform layer includes graphic management platform, e-government platform, statistical analysis platform, intelligent simulation and prediction platform, etc; The business layer mainly includes real estate registration and entry business, survey data management and dynamic update business, relevant administrative approval, information services, etc.

Secondly, for the design of functions, the system must divide the relevant functional areas according to the different types of users, so as to browse the establishment of the initial database and the collection, inspection and acceptance of daily real estate registration data, and carry out a comprehensive intelligent correlation, analysis and research on relevant data statistics.

### 4. Data Linkage Under Big Data Platform

Today's society is a rapidly developing society, with advanced science and technology, smooth information, closer communication between people, and more convenient life.

Big data is the product of this high-tech era. How can government agencies make good use of big data? This requires us to have big data thinking. The goal of real estate registration in China is not only to integrate management, but also to focus on intelligent operation. If the data in hand can be linked and effectively analyzed, these data will certainly be reborn, and its predictive value is incalculable. To be specific, we are gradually moving towards intelligence and wisdom. For example, smart grid, smart transportation, and smart city all rely on big data, which can be said to be the core energy of wisdom.

Extracting useful information from massive data is also a huge challenge for network architecture and data processing capacity. The big data of real estate registration must have a "land and resources cloud" as the infrastructure to operate smoothly; The distributed processing technology is used to connect multiple computers at different locations, with different functions or with different data with communication networks, and under the unified management and control of the control system, the information processing task is completed in a coordinated manner; Big data storage and perception technologies are applied to support big data analysis.

In addition, as a national manager, the government should "hold tight and open loosely". On the one hand, real estate registration information data is confidential and oriented, and the key technology of data security needs to be improved under the premise of cloud technology to ensure the reliability of the data environment. On the other hand, the government should have the courage to gradually open up the data in hand, and provide more competent institutions, organizations or individuals to analyze and use, so as to accelerate the benefit of mankind.

### 5. Concluding Remarks

Based on the current situation of real estate registration and the background of big data, this paper discusses the information management idea based on the "land and resources cloud" architecture, and discusses the integration analysis, information services and data linkage of real estate registration data, with a view to accelerating the integration and establishment of a unified real estate property rights registry, realizing data information sharing on the premise of ensuring data security, and taking a new step for the intelligent management of national resources, And constantly improve in practice.

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