

## Retraction

# Retracted: Cloud-Based Android Intelligent Voice and Enterprise Economic Statistics System Design

### Mathematical Problems in Engineering

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

### References

- [1] L. Zhao and L. Zhong, "Cloud-Based Android Intelligent Voice and Enterprise Economic Statistics System Design," *Mathematical Problems in Engineering*, vol. 2022, Article ID 1682147, 7 pages, 2022.

## Research Article

# Cloud-Based Android Intelligent Voice and Enterprise Economic Statistics System Design

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The analysis of the current economic statistics system shows that the requirements for computing and storage capacity are relatively high. For the previous main controller, it is difficult to meet this basic requirement, but the application of cloud computing technology can solve this problem to a greater extent. Therefore, this paper designs a new economic analysis system based on cloud computing, which can enable small- and medium-sized enterprises to master the business information transmitted by customer economy and improve the quality of monitoring service. Experiments in this paper show that the designed system can reduce the cost of remote communication, interact with SMS, and realize dual channel communication.

## 1. Introduction

In recent years, China's booming economy has created a favorable business environment for Chinese business enterprises, and the main business indicators of the Chinese business industry have leapt to the forefront of the world. Recently, the Chinese mobile commerce service provider Yimei Softcom announced the release of an intelligent voice service product called "Yumibao" [1]. Statistical analysis shows that there is a shortage of expensive call systems in China, and therefore, the capacity of the language service field with similar alternative application functions and affordability is estimated to be at least 30 billion yuan [2].

According to the introduction, the "Language Treasure" integrated special hardware and software communication technology, including a caller pop-up screen, call recording, voice messaging, and identification of long-distance calls and automatically bind IP cards and other special features, so that small- and medium-sized enterprises can master incoming business information, management of incoming customer information, monitoring service quality, and even reduce the cost of long-distance communication. It can be bundled with SMS to achieve dual channel communication

[3]. It only requires SMEs to download the SATISFACTION software and install a set-top box-like device on the telephone switchboard, enabling simple caller information to be incorporated into the scientific application of customer relationship management [4].

With the rapid development of China's economy, the country's business sector is growing, computer technology is being used in a wide range of businesses and economic statistics are developing and innovating rapidly [5]. The complexity of information and data management within enterprises is increasing, and traditional manual methods of managing the internal data of enterprises and completing the required statistical analysis of various types of data will certainly consume a lot of human and financial resources, and the results are often unsatisfactory [6]. Therefore, for the modern enterprise industry, a well-functioning statistical system for economic statistics is increasingly playing a pivotal role [7]. Due to the lack of a good data collection and processing system for the supervision of the internal operations of Ping An Enterprise, the focus of the new information management system should be on the design and implementation of modules for data collection, processing, and statistical report output. The solution proposed in this

paper has been put into use in a branch of the enterprise, and its operational results have met the expected usage requirements [8].

## 2. Related Work

*2.1. Data Mining Techniques.* Data mining refers to the extraction of knowledge from databases as a technique and tool for database analysis, using computer systems to automate the analysis and discover valuable knowledge. Data mining technology has developed rapidly in a short span of more than ten years and has achieved many results. The study in [9] starts from the definition of data mining, introduces the concept of many methods used in data mining technology and their respective advantages and disadvantages, which importantly include neural network method, decision tree method, genetic algorithm, rough set method, fuzzy set method, and association rule method, etc., and on this basis, summarizes in detail the research status and research hotspots of data mining outside China. Based on the statistics of research articles on data mining in Science Citation Index (SCI), Engineering Index (EI), and Tsinghua Full Text Database (CNKI), the authors of [10] analyzed and studied the general trend, research hotspots, and research branches of data mining in China. The study of [11] provides an overview and analysis of the current status of data mining based on the statistics of PAKDD academic conferences and KDnuggets. The study of [12] gives an overview of the background of the emergence of data mining techniques and the general situation of application areas outside China and explains the current classification of data mining and some mining algorithms commonly used in data mining techniques. In the study of [13], the current situation of data mining technology application and its problems is dissected, and the research prospects for the development of data mining technology are foreseen. While, the study of [14] gives an overview of the past and current status of data mining research, highlights the current branches of data mining and the problems it faces, and gives an outlook on the development trend of data mining technology.

*2.2. Enterprise Applications.* Data mining technology originated in the United States in the late 1980s and its main application area was the enterprise industry. With the rise of customer relationship management, by the end of the 1990s, the Royal Scottish Enterprise, American Enterprise, and Société Générale in France had adopted data mining technology in order to improve their business capabilities. In the European and American corporate industries, data mining techniques are widely used in many areas such as personalized marketing and profile management, customer classification and customer retention, credit card user analysis, portfolio risk analysis, financial fraud and risk management, and branch management.

In his article on data mining techniques and their applications in finance, the author of [15] briefly describes the definition and characteristics of data mining and further analyzes the application of data mining techniques in finance

based on an introduction to its main techniques and basic steps. In the study of [15], it is argued that the advancement of technology, the expansion of the market scale, and the development of division of labor and trading methods have caused the business environment of the enterprise industry to change due to the influence of information technology development, and the enterprise industry is facing increasingly fierce competition. The author of [16] explains the basic principles of data mining, analyses the process and main functions of data mining, and illustrates the application of data mining in business enterprises with specific examples. The author of [17] argues that the main elements of data mining applied in business economic statistics are as follows: establishing a risk early warning system and conducting customer relationship management as well as improving the business assessment system. The author of [18] argues that the aspects of data mining technology that can be applied in business regulation include the following: off-site regulation, optimization of regulatory resources, and data visualization. The author of [19] applied the data mining technology to customer segmentation in enterprise customer relationship management, discussed the method of segmenting individual customers of enterprises, and analyzed the effectiveness of this method based on the classification results.

## 3. General Architecture of a Cloud-Based Economic Statistics System

The economic statistics system based on cloud computing mainly includes three components, such as cloud platform, home network management, and mobile terminal application system, etc. Specifically, the construction of the cloud platform is mainly realized by using IaaS and PaaS integrated applications, each of them is responsible for different functions, for the construction of the upper system in the cloud platform and the virtual machine group services to give corresponding satisfaction. In addition, in the whole economic statistics system in the cloud computing model, users can also check the status of their own appliances through webOS, so as to better understand the operation of the economic statistics system and ensure the accuracy of the whole economic statistics system.

*3.1. Economic Statistics System Application Features.* The main features of cloud-based economic statistics systems in the application process are as follows: first, its serviceability is particularly outstanding, especially for the improvement of the service level is extremely obvious. Second, the improvement of computing power is one of the most direct features of cloud computing applications. Again, the application of high-level programming models is crucial. Finally, the economics of the application is also an important feature of the performance.

*3.2. Basic Principles for the Design of the System's Logical Architecture.* Software architecture is the first step in designing abstractions to meet the need for a better

understanding of software systems and to make it easier to develop complex software systems. The logical architecture of a system is used to describe the structure of the system components, their interfaces, and the mechanisms for communication.

The correct design of the software architecture is the key to the success of a software system. The architecture design process needs to achieve the following requirements: control the complexity of the software, improve reusability and facilitate collaborative development.

**3.3. Logical Architecture Design for Management Statistics Systems.** Through an in-depth study of many aspects of an enterprise's performance assessment and business data statistics project, the following aspects of the economic statistics management statistical system have been analyzed in depth.

The system hardware topology diagram is shown in Figure 1:

The statistical system for economic statistics management is based on a W/S/S structure. On the client side, users use the system through a browser, the back-end WEB server side is built on JAVA technology, and the database server uses a RS6000 mini-computer, DB2 database, and efficient C language for batch program development.

The system framework logic diagram is shown in Figure 2:

As can be seen from the system framework diagram, the main functions of the system are divided into manual data entry, business assessment and business data business generation of various multidimensional analysis body, and report query results.

A statistical system for economic statistics covering data from multiple departments and topics such as the Corporate Department, International Business Department, and Retail Business Department. The interface data will be provided by the business. The interface types will therefore be designed primarily according to the specific needs of the customer. The interface types will mainly include the following: text file type interfaces and interface data input type interfaces.

A system that meets the needs of the performance appraisal and business data statistics system and is capable of meeting a certain level of scalability needs to be developed. The system's performance assessment points and statistical indicators are frequently changing. We use the following methods to improve the configurability and scalability of the system's assessment and statistics: definable tree dimension table design, so that the indicators become configurable dynamic data collation; merging and storage, so that the data processing results are no longer fixed, but can adapt to changes in data sources; statistical data integration, business data organization; and reprocessing and foreground presentation. The organization and reprocessing of business data will be based on specific aspects.

**3.4. Database Design.** Database design is an important part of the design process of a statistical system for economic statistics management. The database design has a direct

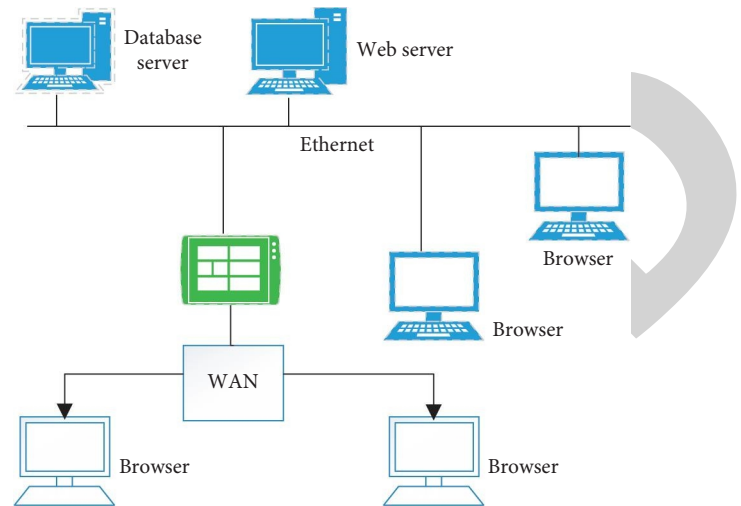


FIGURE 1: System hardware topology.

impact on the smooth progress of the later system development, whether it can achieve the system functions determined in the requirements analysis stage, as well as the operational efficiency of the whole system and whether the system can be easily maintained.

In the design process, we design the conceptual data model according to the general steps of database design, starting from functional requirements analysis, analysis of the data to be recorded, the operations to be performed on the data, etc. From the conceptual data model, we then complete the database table design by analyzing and refining the data that need to be used. The physical data model of the database is then completed based on the characteristics of DB2, the business database used in the development process [20, 21].

## 4. Case Studies

Modern software development often makes use of modules as units of synthesis. Modular programming (also known as "top-down design" and "stepwise improvement") is a software design technique that emphasizes the separation into separate, interchangeable modules, for example, each module containing everything necessary to perform only one aspect of the required function of a program. Functionally, modules conceptually represent a separation of concerns and enforce boundaries between logical components, improving maintainability. Modules are usually incorporated into a program through an interface to a module that provides a representation of the elements required by the module. The elements defined in the interface detect other modules, as shown in Figure 3, with different economic effects.

With modular programming, the concern is to separate modules to perform logical functions. No (or very few) modules interact with the system of other modules, but in the sense that one module can use another module for its purpose. The goal of the desired module is to have no interacting modules. In theory, a modular software project

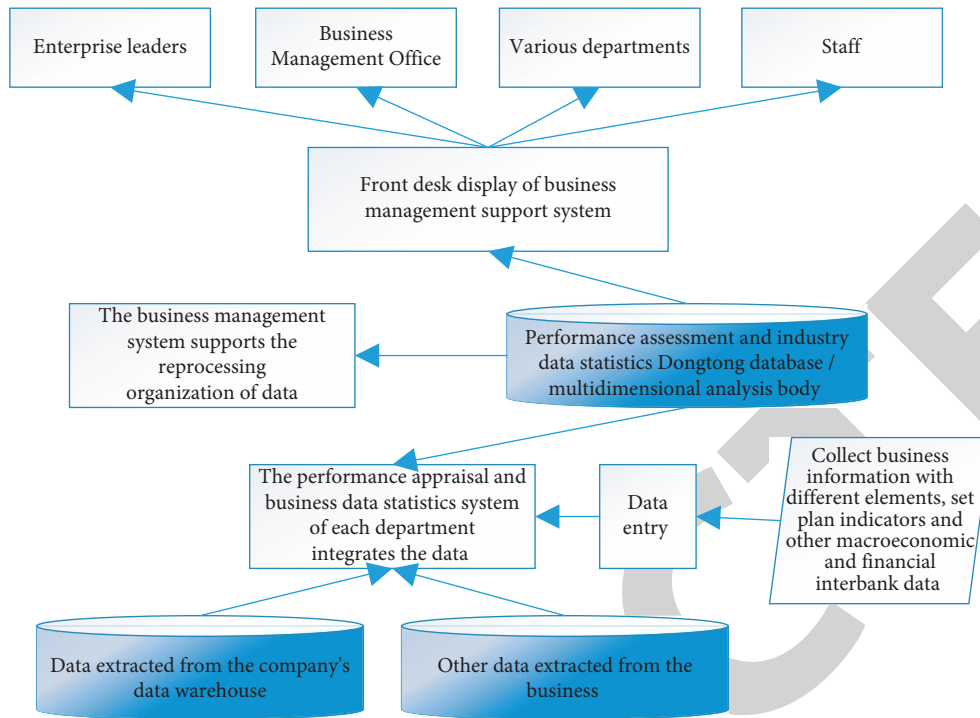


FIGURE 2: System framework.

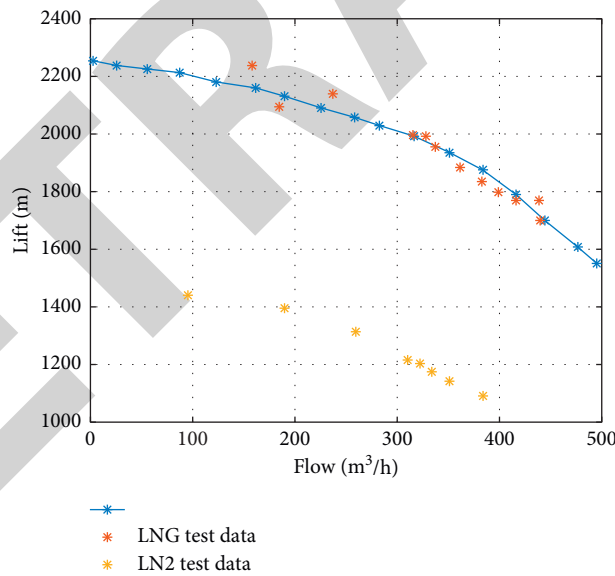


FIGURE 3: Economic statistical effects with different parameters.

would be easier to assemble for larger projects, as no team member would have to create the whole system or even need to understand the system as a whole. Instead, they can focus only on the small tasks assigned, as shown in Figure 4.

With modular program development, programmers can work on multiple projects at the same time, resulting in faster program development, as shown in Figure 5 for the economic statistics forecast. The code base is easier to debug, update, and modify. A complex problem can be broken down into simpler tasks using a structured approach. This is

very beneficial for the development of project plans. The main modules of the economic statistics management statistical system include the following sections: rights management and customer attribution, FTP appraisal, business management statistical analysis, asset and liability business statistical analysis, functional management statistical analysis, and international settlement. The abovementioned process module design makes the whole system more clearly organized and each part of the module is independent of each other. In the course of the system's work, the modules

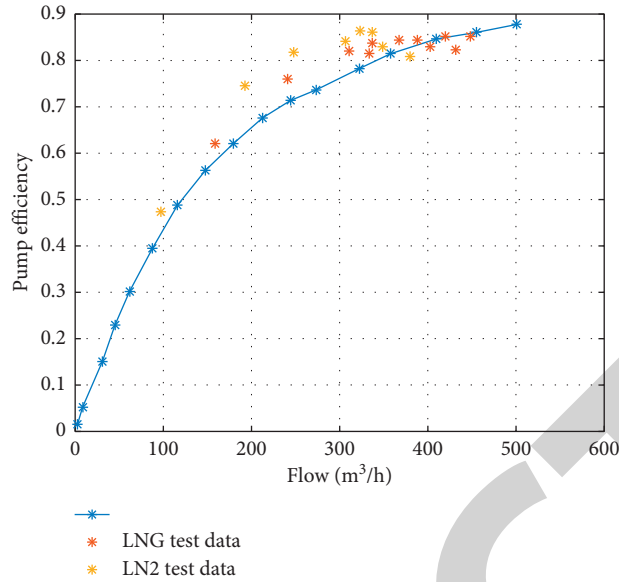


FIGURE 4: Statistical efficiency.

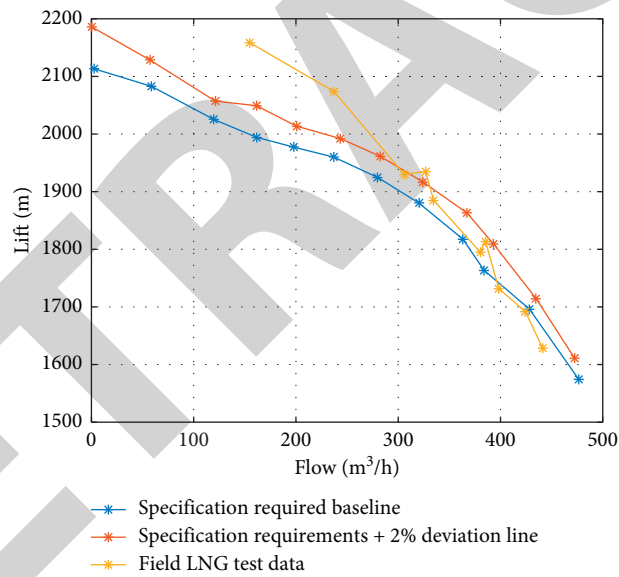


FIGURE 5: Economic trends for different scenarios.

interact with each other through well-defined interfaces, so that there is less mutual influence between the modules, while ensuring that the various parts of the modules can work together better. On the basis of this modular design, it is easier to carry out system development, system maintenance, and the expansion of new product functions. The main advantages are as follows: improved maintainability and scalability of the system [22].

In terms of the current development trend of China's economic statistics system, it has gradually abandoned the original control mode of economic statistics system construction and has instead emerged as an intelligent economic statistics system based on the Internet of Things. Specifically, the application role of cloud computing. The application of

cloud computing in the intelligent economic statistics system can effectively improve the security of life, with the intelligent technology is not popular, its economic effect as shown in Figure 6.

The application of cloud computing in the intelligent economic statistics system can also ensure the comfort of the entire economic statistics environment to a greater extent, the most important aspect of its performance is the effective monitoring and regulation of the humidity and temperature of the economic statistics environment, through real-time control to a greater extent to ensure that the temperature and mixing degree of the entire economic statistics environment can meet the basic needs of people to a greater extent, thus ensuring that people are always in a comfortable state.

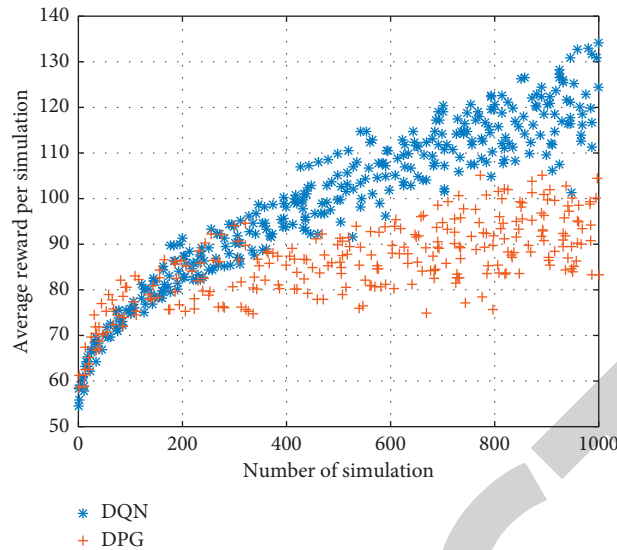


FIGURE 6: Economic returns of different options.

## 5. Conclusions

The value of the application of cloud computing technology in the economic statistics system is also reflected to a greater extent in its collection and statistics of data, especially for the use of the entire economic statistics system to carry out comprehensive statistics and analysis, which can find some of the deficiencies, and can also put forward some appropriate solutions for these deficiencies, and ultimately for the economic statistics system to optimize and upgrade, to enhance the development, and progress of its technology.

## Data Availability

The datasets used in this paper are available from the corresponding author upon request.

## Conflicts of Interest

The authors declare that they have no conflicts of interest regarding this work.

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