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Research Article

Exploration on the Optimal Application of Mobile Cloud Computing in Enterprise Financial Management under 5G Network Architecture

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In order to improve the effect of modern enterprise financial management, this paper improves the mobile cloud computing resource scheduling algorithm under the 5G network architecture. Moreover, this paper introduces mobile edge cloud computing, MEC server, into the financial 5G network system model. Taking into account the possible multihop RSU transmission of the calculation result back, this paper expresses the delay composition of the calculation task on the local execution and offloading to the MEC server in the form of a formula and proposes an offloading strategy based on the MEC load status. On this basis, this paper constructs a mobile cloud computing optimization system under the 5G network architecture and designs experiments to evaluate the performance of the system proposed in this paper. From the experimental research, we can see that the enterprise financial management optimization system based on mobile cloud computing under the 5G network architecture proposed in this paper has good effects in the optimization of corporate financial management.

1. Introduction

Foreign and domestic related experts, scholars, and professional research institutions have conducted more and more in-depth and comprehensive research on financial shared services. Experts and scholars have used empirical research or case investigations and other research methods to reach relatively unified research conclusions on the substantive connotation, characteristics, and value of corporate group financial sharing. Regarding the research on the key factors of reengineering, the initial research mainly used case study methods for in-depth analysis and proving the key factors of enterprise core business process reengineering and their rationality. However, the research on the key factors of financial business process reengineering, which had only an auxiliary role in the enterprise at that time, was insufficient, and financial business process reengineering had its unique research value compared with other business process reengineering techniques of enterprises. In the later research, some experts and scholars conducted a certain degree of research on the key factors in the construction of financial shared services and revealed some key factors that need to be paid attention to in the process of financial process reengineering. However, there is no specific implementation path that can guide enterprises to gradually construct a financial management sharing system under the financial cloud and its main research is the ten-year history of ZTE from the beginning of the reform to the initial establishment of the sharing center, and the follow-up and recent research did not involve it. Therefore, it is necessary to continue to study the key influencing factors in the construction of the financial management sharing system in depth and continue to carry out in-depth discussion and supplementary research on the previous research conclusions. Moreover, according to the specific practices of the selected case companies, the implementation path has a certain guiding significance and is summarized to provide a more comprehensive, detailed, and systematic practice framework for the experience of other companies.

The construction of the financial management sharing system under the financial cloud is essentially a macro and comprehensive reconstruction project, in which the financial cloud platform mainly includes value chain management, budget management, cost management, and performance management. Therefore, in the refining and analysis of the key links of building a financial management sharing system under the financial cloud, it should include the reform and improvement of the management control system of the comprehensive budget management and process management system, as well as the continuous optimization of the core financial business process. According to the theoretical framework of process reengineering, different management business process construction will cause the corresponding organizational structure, management system, information technology, and basic business process optimization and performance evaluation changes. The logic is mainly based on the financial management sharing organization framework under the financial cloud, and there must be a system guarantee to ensure the smooth and efficient operation of financial management personnel and financial business processes, that is, the financial management control system. In the cost management, modules such as tax management and treasury management have laid the institutional foundation for the optimization of the main financial business processes in the future, and the comprehensive budget management system is based on the requirements of the company's strategic planning and organizational design throughout the entire financial business or project process. The process provides a certain basis for the final internal business performance appraisal of the enterprise. In order to support the financial management shared organizational structure and system operation under the financial cloud, it is necessary to use certain information technology to blur the time, space, and boundary constraints of enterprise financial management, and, at the same time, the information technology system cannot be regarded as purely technical and intelligent automation. Business process management should be more deeply understood at the level of corporate management and organizational structure design, because, according to the financial management organizational structure design requirements that the enterprise has built, it is necessary to apply information technology to build a financial management system platform that meets the requirements of ensuring the organizational structure normal operation. The second is the optimization of the business process of corporate financial management. Enterprise financial management business process reorganization and optimization emphasize that, in the process of internal business process optimization of the enterprise, the process operation should be continuously improved and simplified in the established information technology system. The process can be designed with alternative paths or combined with parallel processes. Steps are reorganized to improve the efficiency of business processes such as financial accounting and further financial management.

This article optimizes and analyzes corporate financial management through cloud computing under the background of 5G network architecture and builds an intelligent corporate financial management system to improve corporate financial management effects, which provides a theoretical reference for subsequent corporate financial intelligent management.

2. Related Work

In terms of the concept of cloud computing, literature [1] believes that, in the process of business operation, the main energy of managers is to consider stabilizing business growth and improving customer service satisfaction. Shared services happen to be able to achieve the above functions. It can not only serve the core functions of the enterprise but also reduce management costs. Literature [2] believed that cloud computing is a virtualized resource pool that can be dynamically reconfigured and invoked according to the load, and service providers and users agree on service agreements, and users use the time-based payment model for services. Literature [3] had a deep discussion on the concept of cloud computing. Taking the financial management informationization of small- and medium-sized enterprises as the blueprint, it pointed out that small- and medium-sized enterprises should flexibly adopt different information application modes according to the characteristics of cloud computing. Literature [4] believed that the resource pool of cloud computing is composed of a large number of computers, and the amount of information services such as computing power and storage space is obtained by users according to their actual usage. In the final analysis, cloud computing is a business computing model. Literature [5] established and studied cloud models and believed that cloud computing is a business model based on the Internet. Moreover, it analyzed the operating mechanisms of infrastructure as a service, platform as a service, and software as a service. In terms of the feasibility of cloud computing, literature [6] believed that cloud computing has the advantage of relatively low investment capital. However, a large amount of application software can be obtained with a low investment to meet the needs of business development of the enterprise and can be expanded. Literature [7] summarized the factors that users need to consider when using cloud computing services and used quantitative analysis methods to help companies determine whether to use cloud computing services. In the research of cloud computing platform in the field of accounting informationization, literature [8] investigated the use of cloud computing technology by small- and medium-sized enterprises and found that cloud computing technology provides technical support for the financial management of enterprises. The information is sent to the cloud, saving a lot of costs. Literature [9] proposed that the use of cloud computing financial process reengineering optimizes the configuration of enterprise information systems, which brings about the advantages of low cost and wide access to enterprises and shifts the focus of enterprises from maintaining information systems to innovations in processes and organizations. Literature [10] believed that large storage space and ease of use are the basis for the successful application of cloud computing technology. Cloud computing technology can make resources available anytime and anywhere and improve the flexibility of enterprise computing capabilities. Literature [11] explored the feasibility of enterprises using cloud computing for information planning and pointed out that the use of cloud computing for information construction can improve the competitiveness of enterprises. Literature [12] analyzed the application of cloud computing in enterprise accounting information and its advantages in cost, efficiency, and competition brought to the enterprise. Literature [13] argues that the cloud computing model provides convenient network access. In this mode, the resource sharing pool can flexibly configure computing power, collect as much information as possible in the shortest time, and users can get the required results with only a little investment in management work. Literature [14] believed that the emergence of cloud computing technology has enabled enterprises to carry out further financial process reengineering and pointed out the transformation of financial work from collaboration to financial sharing and the transformation from financial sharing to "financial cloud services" and proposes that enterprises four measures of financial process reengineering: (1) Elimination: eliminate ineffective activities; (2) Simplify: make work as simple as possible; (3) Consolidation: rearrange processes, compress and merge; (4) Automation: OA system ; database; reduce waiting, queuing, idle time. Literature [15] proposed the concept of financial cloud, believed that virtualization is the cornerstone of cloud computing, and introduced the design of financial cloud in the form of a case. Literature [16] believed that the financial cloud reduces the construction cost of financial informationization, changes the working mode of finance, and makes financial software deployment cloud computing. Literature [17] believed that the three major directions of financial cloud research are financial cloud platform architecture, financial cloud guarantee mechanism, and financial cloud and management accounting collaboration model. Literature [18] believed that cloud computing can save costs, improve work efficiency, and facilitate office work in the financial field. Therefore, costs can be reduced in an all-round way, and corporate accounting information resources can be shared. Literature [19] proposed that, to move financial management into the "cloud," it is necessary to master "cloud technology," strengthen "cloud management," adapt to "cloud platform," develop "cloud services," and use "cloud identification."

Literature [20] believed that the biggest application barrier of cloud computing is to ensure data security, including user trust and legal compliance, and qualitatively judgeed the impact of different security issues on cloud computing. Literature [21] studied the security of cloud computing technology, designed privacy fraud blocking and secure computing audit protocols, and realized the combination of secure computing audit and secure storage for the first time. Literature [22] elaborated on the factors that affect the choice of enterprise cloud services: resource delivery and usage mode, information technology scale, and enterprise's demand for data security. Literature [23] believed that, in the process of cloud computing promoting the development of accounting information, the privacy and security issues of accounting information must be considered in cloud computing applications.

3. Design of Financial Data Scheduling Strategy Based on Time-Delayed 5G Network

In reality, communication channels are generally curved and changeable, including not only horizontal-scale turns but also vertical-scale slope fluctuations. In this case, corresponding modeling and research are more difficult. However, in a relatively small scale, the communication channel can generally be regarded as a straight line to facilitate the modeling and research of the financial system network.

This article will assume a one-dimensional one-way communication channel, RSUs are equally distributed, and the distribution spacing is D. Similarly, the diameter of the access coverage of each RSU is also D. Therefore, a communication channel can be divided into many segments according to the coverage of the RSU, and the length of each segment is D. In addition, each financial data cluster only communicates with the RSU in the corresponding coverage area that it accesses, including uplink transmission data and downlink download data. In this model, each RSU is connected to an MEC server through a wired cable. It can be considered that the communication bandwidth is very large, so the transmission time between RSU and MEC is negligible. The model is shown in Figure 1.

The distribution of financial data clusters along the communication channel obeys the one-dimensional Poisson point process with density a; that is, the distance between two adjacent vehicles is independent and obeys the exponential distribution with parameter λ. The probability density function of distance d between any two adjacent financial data clusters is as follows:

$$f_d(d) = \lambda \cdot e^{-\lambda d} (d > 0). \tag{1}$$

X is the distance from the rear boundary of the coverage area of the RSU when the financial data cluster initiates calculation and offloading to the MEC server. Furthermore, after the financial data cluster initiates the offloading of the computing task, the stay time t in the current RSU coverage is

$$t = \frac{D - X}{v}. \tag{2}$$

Now, we will consider how to describe a computing task. For a certain type of financial data cluster computing task i, this paper will use $T_i(c_i, d_i, t_{i,\max})$ to represent it, where c_i is the amount of calculation, which can be specifically the number of CPU operation cycles required for the calculation task, d_i is the amount of input data required for the calculation, and $t_{i,\max}$ is the maximum tolerable delay of the calculation task. If we assume that there are S tasks and the proportion of task i is ε_i, then

$$\sum_{i=1}^{S} \varepsilon_i = 1. \tag{3}$$

In this paper, the financial data cluster that initiates the computing task i is called the financial data cluster of type i, and its transmission speed is v. This article will use c_v to represent the computing power of the financial data cluster

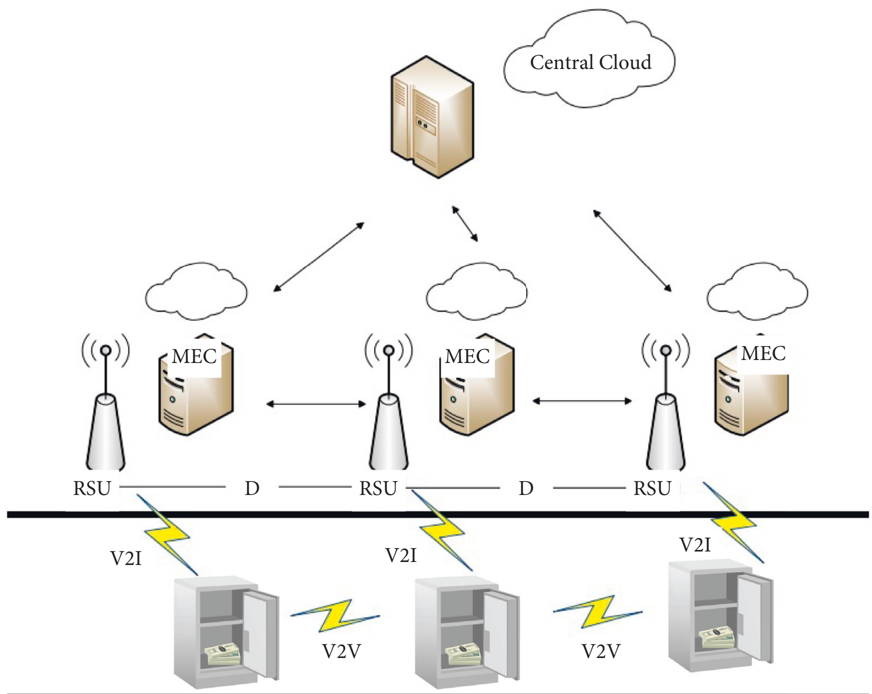

Figure 1: One-dimensional one-way model of financial system network based on mobile edge cloud computing.

(which can be specifically the CPU frequency, i.e., the number of computing cycles executed by the CPU in one second), and c_m represents the computing power of the MEC server. R_i is the uplink communication rate of the i-type financial data cluster, that is, the rate at which the financial data cluster uploads data to the RSU that it accesses. Generally speaking, the amount of input data of a computing task is much greater than the amount of output data, for example, virtual reality and augmented reality applications, so, in this study, the download delay of the calculation output is ignored, and only the multihop transmission delay of the calculation result is considered.

For financial data clusters, the execution of computing tasks is divided into two situations: tasks are executed locally and offloaded to the MEC server for execution.

When the calculation task is selected to be executed locally, the calculation input data is located in the financial data cluster storage device. There is no additional communication overhead during the calculation process, so only the calculation time needs to be considered. The completion delay of a type of task is only related to the computing power c_v of the financial data cluster. For type i financial data clusters that perform type i tasks, the local execution time is $t_{i,\text{local}}$; then,

$$t_{i,\text{local}} = \frac{c_i}{c_v}. \tag{4}$$

The execution time of the MEC server is mainly composed of three parts: the calculation data upload time, the MEC server execution calculation time, and the data return time, which are, respectively, denoted as $t_{i,upload}$, $t_{i,compute}$, and $t_{i,download}$. In most of the computing application scenarios, the amount of calculated output data is much smaller than the amount of input data, so the transmission time of the calculation output from the RSU back to the financial data cluster is not considered in this paper. Therefore, $t_{i,download}$ is only composed of the multihop transmission time caused by the financial data cluster passing through multiple RSU coverage areas caused by the transmission speed which is too fast or the calculation time is too long. For type i financial data clusters that perform type i tasks, the execution time of unloading to the MEC server is $t_{i,MEC}$; then,

$$t_{i,MEC} = t_{i,upload} + t_{i,compute} + t_{i,download} = \frac{d_i}{R_i} + \frac{c_i}{c_m} + \left(t_0 \times x_i\right). \tag{5}$$

When the speed of the financial data cluster is too fast or the calculation time required for the task is long, when the computing task offloaded to the MEC server is completed, the financial data cluster leaves the access range of the RSU connected to the MEC server responsible for the calculation. Multihop transmission is required to return the results to the financial data cluster. Among them, x_i is the number of hops, and t_0 is the single-hop result transmission time. Combining the residence time of the financial data cluster in the coverage of the RSU connected to the MEC server that initiates the calculation task and unloads, the expression of x_i can be deduced as follows, where $\lceil\rceil$ represents rounding up [24]:

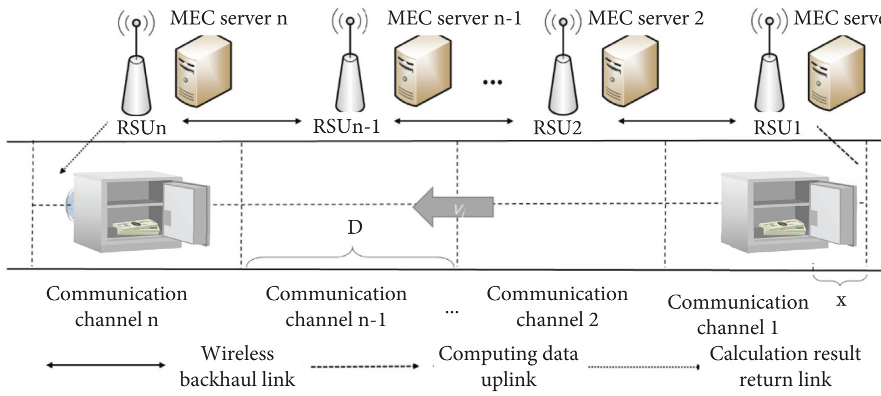

Figure 2: Direct uninstall algorithm.

$$x_i = \begin{cases} \left\lceil \dfrac{v_i}{D} \times \left(\dfrac{d_i}{R_i} + \dfrac{c_i}{c_m} - \dfrac{D-X}{v_i} \right) \right\rceil, & \dfrac{d_i}{R_i} + \dfrac{c_i}{c_m} - \dfrac{D-X}{v_i} > 0, \\ 0, & \dfrac{d_i}{R_i} + \dfrac{c_i}{c_m} - \dfrac{D-X}{v_i} \le 0. \end{cases} \quad (6)$$

The first strategy is a general strategy that is usually considered, which is called the direct offloading algorithm in this paper. When the financial data cluster needs to offload the computing task to the edge cloud for execution, the calculation input data is directly uploaded to the RSU currently connected to the financial data cluster through V2I; that is, the computing task is offloaded to the MEC server connected to the RSU. In this case, it can be foreseen that if the financial data cluster is fast or the calculation task is very large, a lot of calculation time will be required, and the calculation result needs to be returned to the financial data cluster through a multihop RSU. The communication between RSUs needs to go through a wireless backhaul link (Wireless Backhaul), and the backhaul link is relatively unstable, has large fluctuations, and has a high delay. The whole process is shown in Figure 2.

At $t = 0$, the financial data cluster i initiates the offloading of the computing task. At this time, the financial data cluster i is located in the coverage area of RSU1, and the back boundary distance between the financial data cluster and RSU1 is X. The financial data cluster starts to upload the input data of the calculation task to RSU1 and then unload the calculation task to the MEC server I for execution. We assume that the computing task can be executed immediately after being offloaded to the MEC server. At time $t = d_i/R_i + c_i/c_m$, the financial data cluster leaves the coverage area of RSU1 and enters the coverage area of RSUn. The calculation result needs to be transmitted from RSU1 to RSUn through the wireless backhaul link and then back to the financial data cluster from RSUn.

The total time used in the whole process is t_{ij}, i represents the type of financial data cluster, as well as the type of calculation task of financial data cluster, and j represents the MEC server that executes the calculation task. $j = 0$ indicates that the calculation task is performed locally, and $j = 1$ indicates that the calculation task is performed on the MEC server 1; then,

$$\begin{aligned} t_{i,0} &= \frac{c_i}{c_v}, \\ t_{i,1} &= \frac{d_i}{R_i} + \frac{c_i}{c_m} + (t_0 \times x_i) + T_{W1}. \end{aligned} \quad (7)$$

In the above formula, T_{W1} represents the waiting time of the calculation task i before the MEC server I executes the calculation. Below, this paper will derive the expression of T_{W1}, and the unit density of financial data clusters is defined as λ_u, which represents the average number of financial data clusters in an RSU section. The passing speed of the financial data cluster is defined as v_u, which represents the number of RSU road sections that the financial data cluster passes through per second. Then, the "birth rate" λ in the single MEC server queuing model satisfies

$$\lambda = \lambda_u \cdot v_u. \quad (8)$$

For S types of computing tasks $T_i(c_i, d_i, t_{i,\max})$, $i \in \{1, 2, \ldots, S\}$, the proportion of all tasks is ε_i, $i \in \{1, 2, \ldots, S\}$, respectively; then the "mortality" μ in the single MEC server queuing model can be considered as

$$\mu = \frac{1}{\sum_{i=1}^{S} \varepsilon_i (c_i/c_m)}. \quad (9)$$

When formulas (8) and (9) are substituted into formula (1), the load level ρ of the system is obtained as

$$\rho = \frac{\lambda}{\mu} = \lambda_u v_u \sum_{i=1}^{S} \varepsilon_i \left(\frac{c_i}{c_m} \right). \quad (10)$$

The probability P_0 that the server is in state O or idle is

$$P_0 = 1 - \rho = 1 - \lambda_u v_u \sum_{i=1}^{S} \varepsilon_i \left(\frac{c_i}{c_m} \right). \quad (11)$$

According to formula (2), the probability P_0 that the server is in state k is

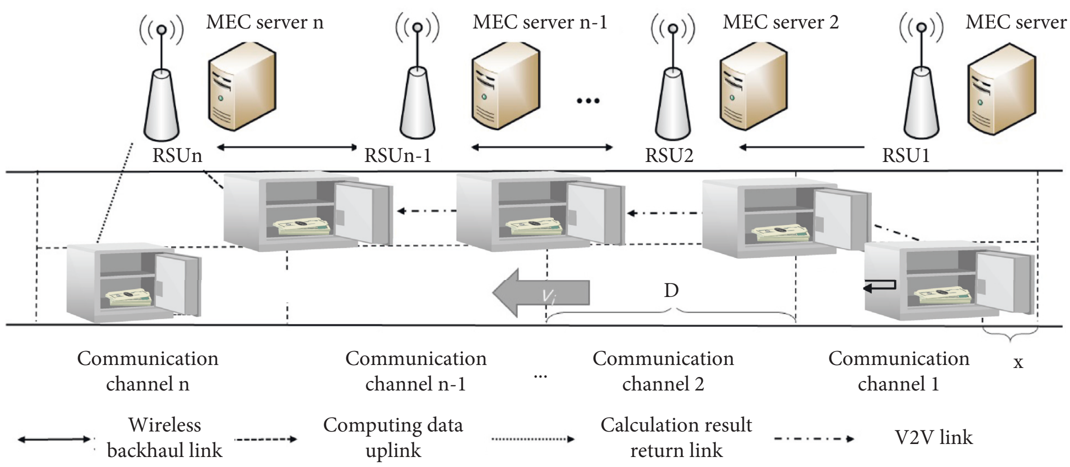

FIGURE 3: Predictive V2V offloading algorithm.

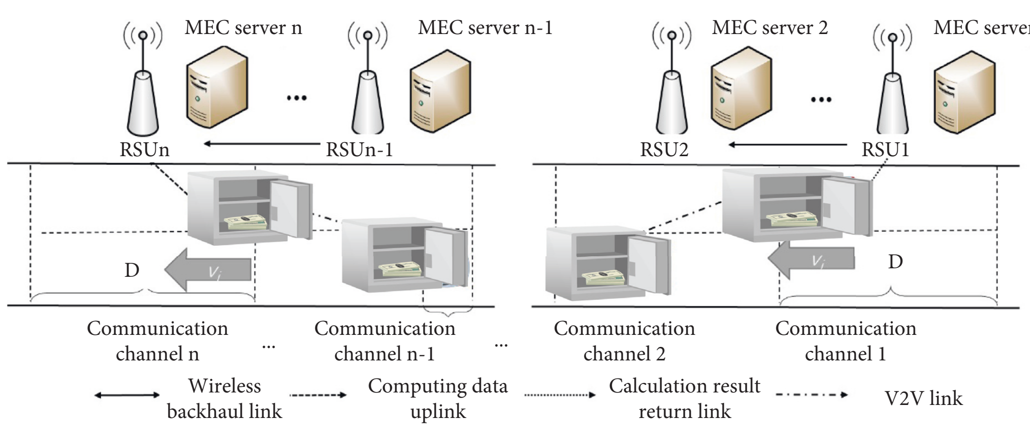

FIGURE 4: Predictive unloading algorithm based on MEC status.

$$P_0=\rho^k(1-\rho)=\lambda_u^k v_u^k\left(\sum_{i=1}^{S}\varepsilon_i\left(\frac{c_i}{c_m}\right)\right)^k\left(1-\lambda_u v_u\sum_{i=1}^{S}\varepsilon_i\left(\frac{c_i}{c_m}\right)\right). \tag{12}$$

In addition, the sojourn time TW of a computing task in the MEC server system obeys the exponential distribution with the parameter $1/\sum_{i=1}^{S}\varepsilon_i(c_i/c_m)-\lambda_u v_u$. In fact, there are more accurate T, simulation and simulation methods for the specific calculation tasks, and proportions of the known parameters, which will be explained in the next section.

The second strategy is the V2V uninstall algorithm. Before uninstalling, estimate the time for the completion of the calculation task, predict the location of the financial data cluster when the task is completed, and then know the RSUn accessed when the task is completed. This paper chooses to forward the input data of the calculation task to the front MEC server n for execution through the V2V method. When the financial data cluster reaches the front MEC server n, the calculation task is just completed and sent back to the financial data cluster. At this time, the calculation results are not transmitted between RSUs through the backhaul link, and the rich communication resources between the financial data clusters are used. The cost of v2V multihop communication is smaller than that of the backhaul link communication between RSUs. The process is shown in Figure 3.

This article will not study the specific details and algorithms of V2V communication and will mainly focus on offloading strategies. Therefore, this paper defines the V2V to 12I (RSU to RSU) time ratio r_{V2V} to represent the ratio of the time taken to transmit the calculation result through the V2V and the calculation output between the RSUs through the backhaul link within a range of D. Therefore, under this strategy, the total time $t_{i,n}$ for offloading to the MEC server to perform calculations can be expressed as

$$t_{i,n}=\frac{d_i}{R_i}+\frac{c_i}{c_m}+\left(t_0\times x_i\times r_{V2V}\right)+T_{Wn}. \tag{13}$$

In the above formula, T_{Wn} represents the waiting time of the calculation task i before the MEC server n performs the calculation.

As mentioned earlier in this paper, the WAVE protocol stack defines two types of wireless channels: control channel CCH and service channel SCH. What is transmitted in the control channel are WSMP messages and system management information, which can be considered to include the status of the financial data cluster and the status of the

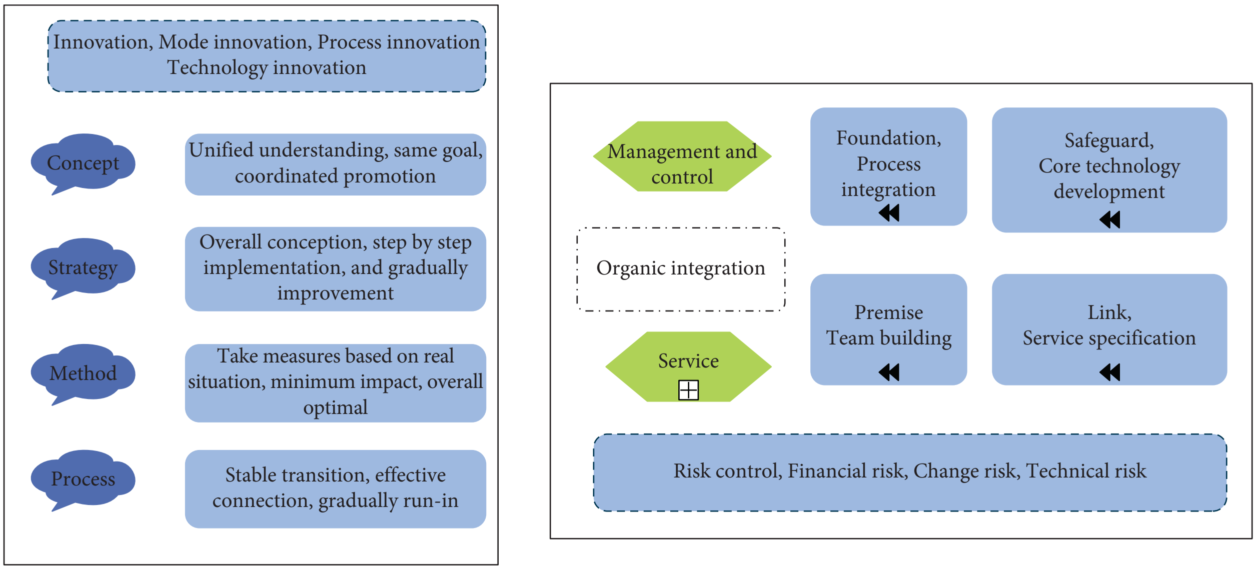

FIGURE 5: Financial shared service implementation model and principles.

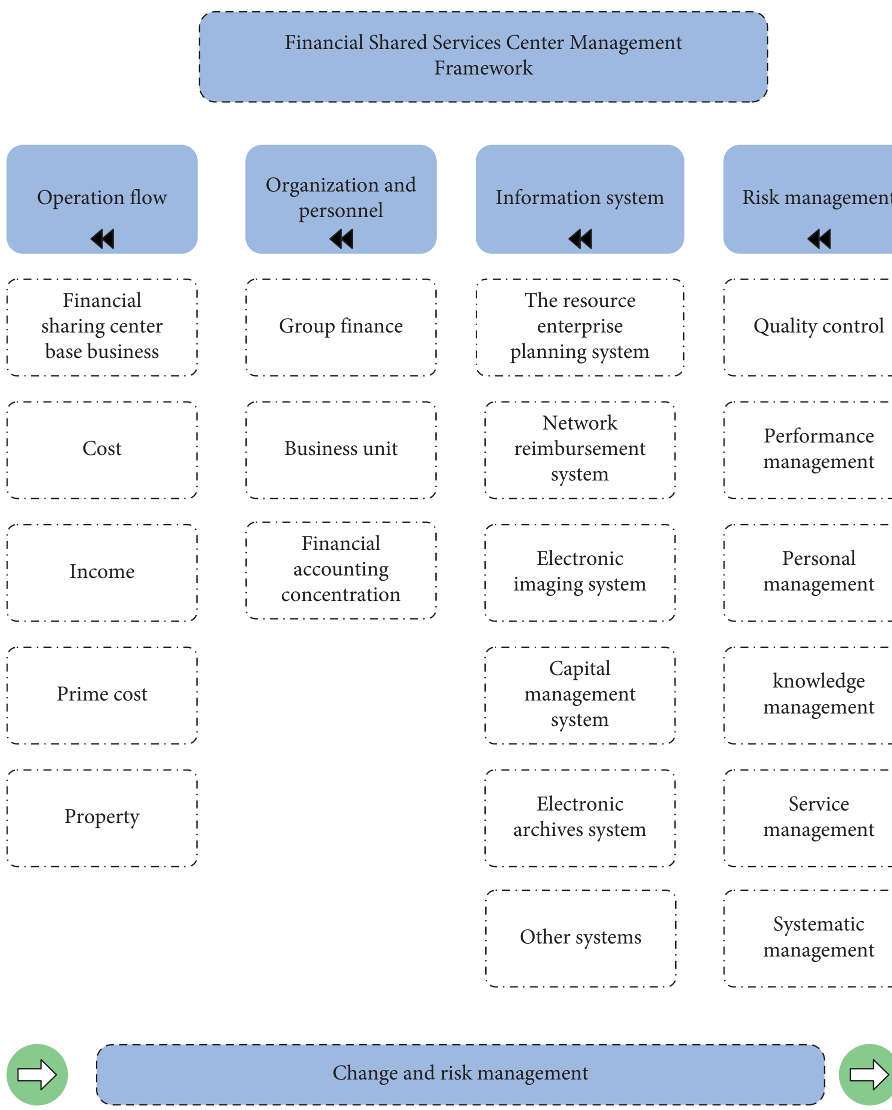

FIGURE 6: Financial shared service management framework.

roadside infrastructure including the MEC server. RSU can broadcast its own status information. This periodic broadcast status message enables the financial data cluster that needs to offload computing tasks to grasp the load status of the neighboring MEC server. From another perspective, the first strategy is to choose to execute computing tasks on MEC server 1, and the second strategy is to choose to execute computing tasks on MEC server 2. In fact, computing tasks can be offloaded and executed on MEC server 1, MEC server 2, . . ., MEC server $n-1$, and MEC server n. According to the load status of the MEC server, the financial data cluster offloads tasks to the MEC server with the lowest load. The calculation input data is uploaded and the calculation output result is returned through the lower cost V2V communication. The whole process is shown in Figure 4.

It can be seen that the calculation input data can be uploaded to the MEC server connected to all RSUs through the financial data cluster within a period of time using V2V communication, and the MEC server j with the lowest load and the shortest waiting time is selected to unload the computing task. In addition, the return of the calculation result is also completed through the lower cost V2V communication. Compared with the second strategy, it saves the time for computing tasks to wait for service on the MEC server. The total time of the whole process can be expressed as

$$t_{i,j} = \frac{d_i}{R_i} + \frac{c_i}{c_m} + \left(t_0 \times x_i \times r_{V2V}\right) + T_j\left(T_j = \min\left\{T_1, T_2, \ldots, T_{n-1}, T_n\right\}\right). \quad (14)$$

When the above three strategies are executed, first the time for the task to be executed locally and offloaded to the MEC server for execution is calculated, and then the method with lower latency is selected.

4. The Enterprise Financial Management Optimization System Based on Mobile Cloud Computing under the 5G Network Architecture

The reform of the financial shared service model can cause major changes to the original work process and business process. This change is an innovative combination of process, mode, and technology, as well as an organic integration of service and management. The construction of the financial shared service center and the transformation of financial personnel "must adopt the overall principles of unified understanding, unified goals, coordinated cooperation, joint advancement, step-by-step implementation, and gradual improvement" (Figure 5).

The financial sharing service is largely derived from the sorting, reengineering, and optimization of the financial management process. Well-organized personnel ensure the efficiency of human resource allocation after the financial shared service center goes online. The financial shared service management framework is a combination of the interrelationships of various elements, mainly including the following aspects: business process management, information system management, organization and personnel process management, and risk management (Figure 6).

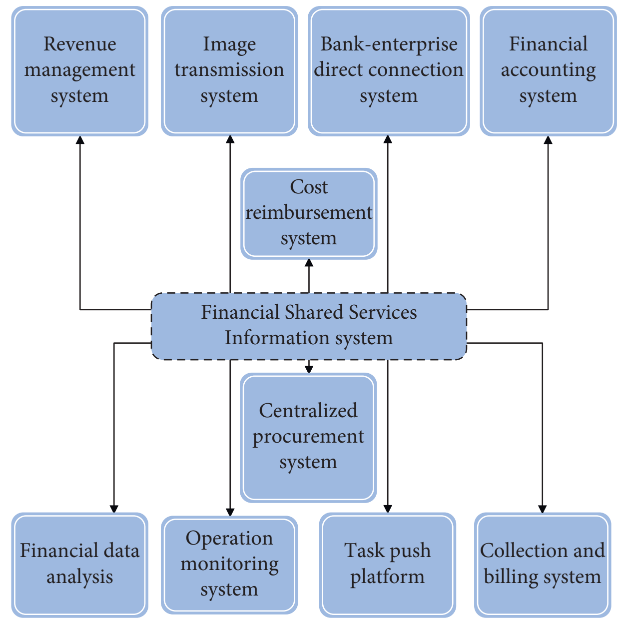

Figure 7: Financial shared services information system.

Information system has become an indispensable part of financial sharing services (Figure 7), including expense reimbursement system, revenue management system, influence transmission system, bank-enterprise direct connection system, and financial accounting system. It is a tool for the realization of financial shared service functions and also an important support and guarantee for the realization of shared efficiency, quality, and benefits.

In the MEC network architecture, computing, storage, and business service capabilities are submerged to the MEC equipment at the edge of the network. Terminal equipment can offload services to network edge nodes for localized processing, thereby meeting the service requirements of scenarios such as low latency and high reliability in 5G networks to a certain extent. In addition, the localized processing of services can make the services closer to the user itself and the wireless network, so as to realize the user's perception and utilization of network location, network load, wireless resource utilization, and so forth and effectively improve user experience. In the 5G network, the basic architecture of MEC is shown in Figure 8.

In the SD-CEN network architecture, in order to reduce the service response delay, MEC technology is introduced to process computationally intensive operations at the edge of the network. At the same time, the introduction of SDN technology realizes centralized control of the network and collects global network information. The SD-CEN architecture is shown in Figure 9.

On the basis of the above analysis, the performance verification of the financial management optimization system proposed in this paper is carried out. The model is mainly researched from three aspects of data processing, data transmission, and financial management, and the results shown in Table 1 and Figure 10 are obtained.

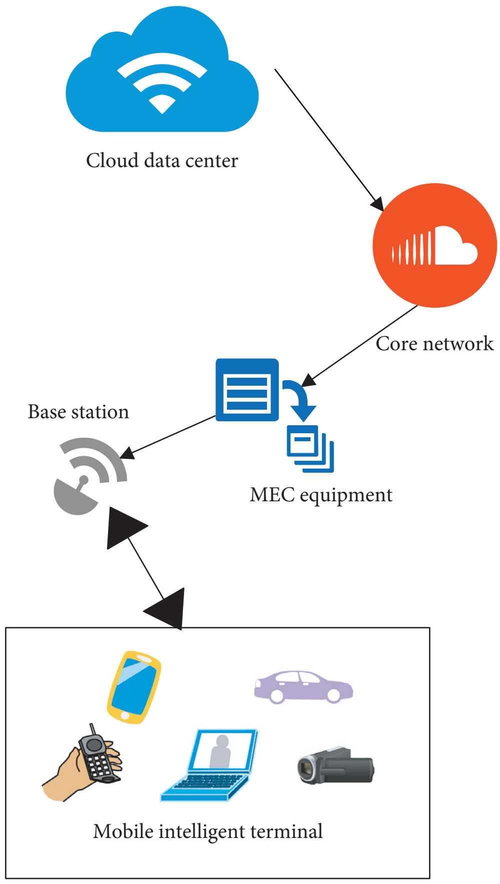

Figure 8: MEC basic network architecture in 5G network.

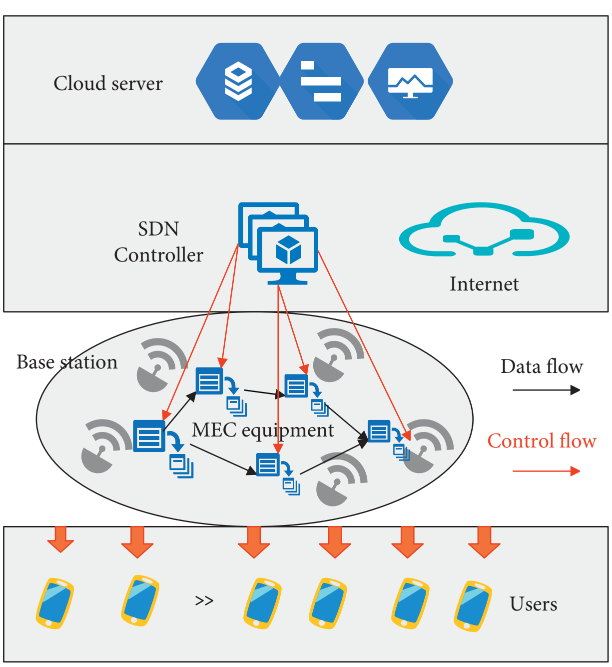

Figure 9: SD-CEN network architecture for enterprise financial management applications.

Table 1: The optimization effect of the mobile cloud computing optimization system under the 5G network architecture in the enterprise financial management.

No.	Data processing	Data transmission	Financial management
1	92.40	89.30	91.53
2	91.12	87.79	81.09
3	86.37	84.06	83.83
4	86.54	86.83	83.93
5	90.21	83.11	80.55
6	87.08	85.32	88.06
7	88.41	85.59	76.73
8	89.19	84.65	78.04
9	89.45	82.92	82.77
10	87.58	83.06	86.13
11	90.53	82.42	83.20
12	86.03	83.11	83.51
13	86.03	83.85	88.44
14	88.64	86.79	79.42
15	90.46	85.90	79.91
16	87.63	88.55	81.72
17	89.04	87.82	76.50
18	88.13	88.97	85.34
19	90.59	88.25	89.97
20	91.84	88.59	83.60
21	89.07	86.74	89.65
22	89.50	91.42	84.03
23	86.68	86.63	89.04
24	91.51	89.70	81.23
25	92.17	91.86	88.88
26	90.71	84.54	84.74

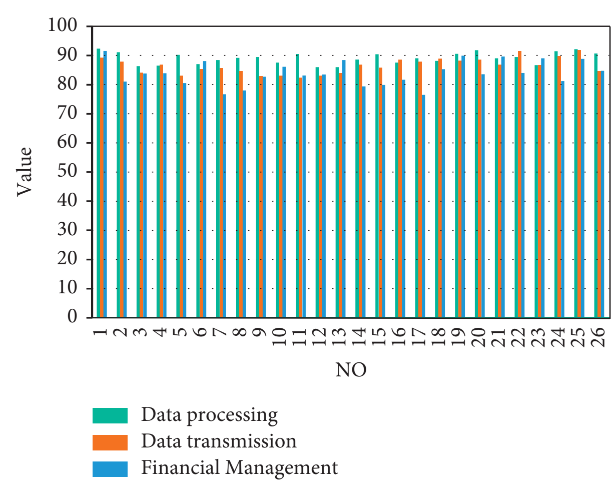

Figure 10: Experimental data statistics.

From the above research, we can see that the enterprise financial management optimization system based on mobile cloud computing under the 5G network architecture proposed in this paper has good results.

5. Conclusion

In the context of mobile Internet and cloud computing, a wave of financial shared services based on shared services and supported by cloud computing have emerged. The wide range of financial sharing service objects and the importance of service information make the significance of information security management stand out. Moreover, a group financial shared service management platform has been established to improve the efficiency and effectiveness of financial management. The establishment of a unified financial accounting system for the group unifies the accounting system within the group, simplifies the accounting process, and unifies the auxiliary accounting settings. Moreover, the establishment of a group financial shared service management system to realize the automatic generation and summary of the entire group's accounting statements provides the possibility for the management decision-making level to query the required financial information at any time and lays a good platform for the improvement of the financial management level. In addition, a fixed asset information management module was established to realize the query, summary, and management of the group's fixed assets. This article optimizes and analyzes corporate financial management through cloud computing under the background of 5G network architecture, builds an intelligent corporate financial management system, improves corporate financial management effects, and provides theoretical references for subsequent corporate financial intelligent management.

Data Availability

The labeled datasets used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare no conflicts of interest.

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