Research Article

Mobile Information System of Ceramic Appreciation and Communication Management Based on Mobile Edge Computing

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Mobile edge computing is a very popular technology now. It was proposed to eliminate the problem of lack of global computing resources. This article aims to study the use of the latest mobile edge computing technology to study the mobile information system for appreciation, exchange, and management of the traditional ceramic industry. The whole article uses mobile edge computing technology. It enters the network using wireless methods and provides recent users with the required services and cloud computing functions, allowing users to easily query the information and data they want, plus mobile. The information system enables people to use mobile phones, tablets, and other mobile terminals to query information in the ceramic industry and perform functions such as appreciation, communication, and management. From 2016 to 2020, our country's ceramic industry exports have increased from US\$3.067 billion to US\$6.826 billion. Traditional ceramics in our country have been loved by various industries at home and abroad. The number of employees in the ceramic industry has also increased to 5 million, an increase of 30% year-on-year. The ceramic industry is also very promising in the long term.

1. Introduction

Since the beginning of the 21st century, the increasing number of mobile devices new services, like 3D video games and face recognition that require higher processing capabilities of mobile terminals, is developing rapidly, and the management of mobile terminals will face huge challenges. Currently, MEC technology is used to solve the lack of global computing resources due to high mobile accessibility. In order to cope with the next generation of 5G mobile communications, mobile network traffic has become more expensive, with higher performance, and the application complexity is not limited by the terminal. The MEC is designed and developed to transfer the computing load from the main cloud data center to the mobile equipment to reduce network pressure. In the traditional radio access network (RAN), the base station is deployed at the edge of the mobile network and can switch services. However, the base station will not analyze or respond to user requests. Therefore, traditional base stations cannot provide edge computing services beyond network connections.

Until now, in order to solve the problems of the rapid development of the mobile Internet and the development of modern wireless networks, small base stations with certain computing and storage capabilities have been located, and the small base stations have been placed on the edge of the large mobile Internet to accelerate the speed of interconnection. The purpose of solving the above problems provides users with lower latency and higher bandwidth and reduces the burden on the backbone network. Therefore, the ETSI provides MEC as a model, a promising computing model. The basis of the model is the evolution of 5G networks and is a proposed emerging technology for the deep integration of Internet services and small cells. The carrier node usually consists of a series of small or very small base stations with computer and storage capabilities. It is also used at the edge of the network to enable mobile handheld devices, terminals, and very close components to provide processing and storage services to meet the needs of higher computing workloads and low-latency processing, as well as reduce the workload of the backbone network.

MEC is a new form of computation, storage, and distribution of network resources within a mobile radio access network (RAN), being environmentally sensitive and user friendly. This method reduces the burden on the backhaul and core network and is essential for realizing low-latency, high-bandwidth, and agile mobile services. Tran T X envisions a real-time, context-aware collaboration framework, which is located at the edge of the RAN, composed of MEC servers and mobile devices, and integrates heterogeneous resources at the edge. Specifically, Tran T X introduced and studied three powerful use cases, including mobile edge orchestration, collaborative caching and processing, and multilayer interference cancellation. We demonstrated the great advantages of these methods in facilitating the evolution to 5G networks. Finally, we discussed the key technical challenges and open research issues that need to be resolved in order to effectively integrate MEC into the 5G ecosystem. However, he did not do specific experiments and related data and provided a practical data support for the collaborative framework he envisioned [1]. Under dynamic pressure, the Internet has become one of the most important technologies in the international education industry and industry. However, a lot of small data from users is very scattered and not good for compression. This facilitates the use of computing resources and reduces the chance of accidental access. Additions are also very sensitive to delays in the transfer of user data, such as control data. However, traditional internet streaming does not always meet that requirement. The integration of edge mobile computing makes the Internet of Things easy for data retrieval, processing, management, and accessibility. In this piece, Liu L proposed a new Internet power system to increase the likelihood of accidental crashes and reduce data transfer rates. This consumes a lot of internet power data. Statistical results show that this architecture can increase the life expectancy and reduce transmission delays without increasing energy consumption. However, it does not take into account the current state of the art technology and may not meet the intended regulatory requirements [2]. Reducing overall power consumption and network latency is one of the most attractive issues for cloud computing (MCC) compliance and large-scale service level agreement (SLA). However, the delay caused by this loading and unloading process leads to the use of servers (called cloudlets) located close to the actual user. It allows what is known as mobile edge computing (MEC) to meet users' requirements for different types of services. And over a wide geographical area, Xiaoyun works by sending user requests from one small cloud to another. This type of collaboration affects energy consumption and latency. In this project, Jararweh et al. proposed an optimization model for MEC systems, taking these two points into account simultaneously. Specifically, Jararweh et al. looked at cloud sizes. There are two types of small clouds: local small clouds and global small clouds, which have higher capabilities. The user connects to the local cloudlet and sends all the traffic to it. If the local cloudlet cannot serve the request, the request will be transferred to the cloud on another machine. If there is no local cloudlet capable of serving the request, go to a central cloudlet that can provide

all kinds of services. The Xiaoyun hierarchical network request process increases power consumption and latency. Our model reduces energy consumption while producing acceptable levels of lag. We evaluate the results in many real situations, a scenario to show that it can be used for real power optimization of large MEC systems without violating the delay constraints. A design model was applied to the MEC system, but no specific experiments were performed to design a detailed model of its design [3].

This paper uses the latest MEC, that is, mobile edge computing technology, for the traditional ceramic industry to develop and design a mobile information system for ceramic appreciation, communication, and management, so that people can query the information they want on the system at any time. The system architecture of mobile edge computing can allow nearby users to access the network and provide them with the services they need. Nowadays, the demand for computing and storage resources for end-to-end applications continues to increase, which will increase the workload of uninstalling mobile terminals in the cloud and become the most effective way to solve the problem of insufficient terminal performance. The integration of this technology with the ceramic industry can inject new vitality into the traditional industry. It has its own place in this fast-developing era and can well show our country's traditional culture.

2. Mobile Edge Computing and Communication Management Mobile Information System

2.1. Mobile Edge Computing. Mobile edge computing can easily access the network wirelessly and provide the latest telecommunications users with what they need, services and cloud computing functions [4]. It allows users to experience a very high-quality network experience, such as speeding up network loading, service response, application downloading, and other functions. As mobile devices continue to be created, a variety of products emerge in an endless stream. At this time, it is necessary for the computing power of mobile terminals to keep up with the needs of a large number of users, plus 5G, face recognition, VR games, and other technologies. This is a very serious problem for the development of all walks of life, and mobile edge computing technology emerged at the historic moment. It can well solve a large number of computing problems brought about by the massive access of next-generation mobile communication devices and can eliminate the problems of high mobile network costs, low efficiency, and multiple terminal applications [5, 6]. Specifically as shown in Figure 1, MEC specific architecture enables nearby users to access the network and provide them with the services they need.

Clustering algorithm is an algorithm for studying specific classification problems. It is also an important algorithm for data mining. It is usually composed of several different models. It is widely used in autonomous learning. The defined data set can be specified and divided into multiple subsets, such as groups. In general, clustering is the process of splitting an instance into a set of data into independent subsets using an algorithm [7]. This particular

FIGURE 1: Schematic diagram of the MEC system architecture.

algorithm is to arrange the data sets to create a data cluster, and meet the following two conditions: 1. subsequent tasks in the same cluster may be similar; 2. the gap between the different groups of jobs should be as large as possible. There are two types of Euclidean distance and Mahalanobis distance in the clustering algorithm. The Euclidean distance formula can be expressed as

$$c_{A,B} = \sqrt{\sum_{n=1}^n (A_m - B_n)^2}. \quad (1)$$

The Mahalanobis distance can be expressed as

$$c_{A,B} = \sum_{m=1}^n |A_m - B_m|. \quad (2)$$

Ming's distance is an extension of Mahalanobis distance:

$$c_{x,y} = \left(\sum_{i=1}^n |x_i - y_i|^p \right)^{1/p}. \quad (3)$$

It is also often used. It can be seen that, for the Ming's distance, when $p = 1$, it corresponds to the Mahalanobis distance, and when $p = 2$, it corresponds to the Euclidean distance [8].

Assume that, at a certain moment, the task in the SDN controller is $\{S_1^*, S_2^*, \dots, S_n^*\}$, and the corresponding delay sensitivity is $\{P_1^*, P_2^*, \dots, P_n^*\}$, respectively. After normalizing the delay sensitivity, the delay sensitivity obtained is $\{P_1^*, P_2^*, \dots, P_n^*\}$ respectively, where

$$P_i^* = \frac{P_i'}{\sum_{j=1}^n P_j'}. \quad (4)$$

The total amount of calculation consumed to complete the task is, respectively, $\{L_1', L_2', \dots, L_n'\}$ and the total calculation amount obtained after the normalization operation of the calculation amount is $\{P_1^*, P_2^*, \dots, P_n^*\}$, where

$$P_i^* = \frac{L_i'}{\sum_{j=1}^n L_j'}. \quad (5)$$

Euclidean distance between jobs is S_i^*, S_j^* in the same cluster which can be expressed as

$$d_{i,j} = \sqrt{(P_i^* - P_j^*)^2 + (L_i^* - L_j^*)^2}. \quad (6)$$

The average of its values in the same cluster is

$$\bar{d} = \frac{\sum_{i=1}^n \sum_{j=1, j \neq i}^n d_{i,j}}{C_n^2}. \quad (7)$$

D is the standard deviation in the work. When there is job C_i in cluster $\{S_1^*, S_2^*, \dots, S_n^*\}$, the corresponding standard deviation is

$$D_i = \sqrt{\frac{\sum_{i=1}^{n'} \sum_{j=1, j \neq i}^{n'} (d_{i,j} - \bar{d})^2}{C_{n'}^2}}. \quad (8)$$

We believe that, in the same complex, the lower the standard deviation of all tasks, the greater the similarity of the items. Therefore, we are waiting for the results of the merger. The maximum value of the standard deviation in all clusters is minimal [9]; that is, when all functions can be divided into k -blocks, we would expect

$$\min\{\max D_i\}, \quad i = 1, 2, 3, \dots, k. \quad (9)$$

2.2. MEC Server Technology. MEC servers can provide cloud services for mobile users over Wi-Fi hotspots, as shown in Figure 2. At present, computing and storage resource requirements are increasing among terminal applications on mobile terminals in the cloud. It has become the most effective solution to the problem of insufficient endpoint performance [10]. MEC servers bring the traditional cloud computing core to the edge of the network at the user side, including accelerating content, services, and applications. This will improve the edge response. Although MEC server provides users with a highly distributed computing environment, it can also perform additional functions that are not possible in traditional Internet architectures, such as real-time data analytics, and a better understanding of distributed cloud computing. For many emerging applications, such as video volume services and local streaming media services, when the local MEC server cannot meet the needs of users or the MEC server and the computing power of the mobile terminal, mobile providers can use the MEC server to work together with the main cloud [11]. The MEC server may request computing resources to complete the task. Small clouds that use MEC services have significant traffic delays. And the device with high Wi-Fi coverage is uninstalled and can work smoothly. MEC technology is

FIGURE 2: MEC system application scenario.

accredited by 5GPPP (5G infrastructure public private). It also includes virtual networks (NFV) and network resolution networks (SDN) [12].

When task S_i is executed on the mobile terminal, the total system delay from issuing the uninstall request to the completion of functions can be specified as follows tl_i ; when task S_i is executed on the MEC server, the minimum total delay of the system can be expressed as

$$TC_i = Tt_i + tb_i + \min_{j \in \text{allMECserver}} \{Pc_{i,j} + t_i\}, \quad (10)$$

where Tt_i represents the transmission delay, tb_i represents the waiting delay due to insufficient bandwidth, $Pc_{i,j}$ represents the queuing delay on the MEC server j , and t_i represents the task execution delay on the server. When task S_i is executed on j , the execution delay is expressed as

$$TC_{i,j} = Tt_i + tb_i + Pc_{i,j} + t_i. \quad (11)$$

Assuming that the cost per unit time consumed when performing tasks and transmission tasks is 1, the cost of consuming computing resources of mobile terminals and MEC servers to perform unit time tasks is c_{ue} and c_c times the time cost [13], the cost defined in this article is an abstract concept; in the actual system, we can specifically define the dimensions according to the objects of interest, such as costs. Therefore, the cost of executing task S_i on the mobile terminal is defined as

$$u_{i,0} = tl_i + t_i \cdot c_{ue}. \quad (12)$$

The cost of performing task S_i on the MEC server MC_j is

$$u_{i,j} = TC_{i,j} + t_{i,j} \cdot c_c. \quad (13)$$

In the single task mode, the local SDN server will choose the mobile terminal or MEC server with the least overhead to perform the task [14]; that is, when there are M MEC servers $MC_1, MC_2, MC_3, \dots, MC_M$ in the cell, the task offloading strategy in the system can be expressed as

$$j = \arg \min_j (u_{i,j}), \quad 0 \leq j \leq M. \quad (14)$$

When $j=0$, the local SDN server rejects the uninstallation request of the task, and the task is executed on the mobile terminal.

From the STM mode, the total transmission delay Tt_i of task S_i can be expressed as

$$Tu_i = Tt_i. \quad (15)$$

2.3. Mobile Information System. Mobile information refers to the use of integrated communication platforms including advanced mobile communication technology and mobile Internet technology, through the interactive data communication of multiple platforms such as terminals, to realize the mobilization of business and service management [15, 16]. Generally speaking, mobile information is the realization of various information applications based on mobile terminals such as smart phones, tablets, smart watches, and technologies such as telecommunications and the Internet, and it finally allows mobile devices around you to be used for mobile at any time. The portability of servers and personal computers, the provision of information, electronization, and networking provide the society with efficient, high-quality, standardized, and transparent integrated management processes and services, and they can also interact with online information at any time. The mobile information system is one of the most popular mobile communication systems. It is a system designed with mobile information technology as the core, which can be integrated with all walks of life, such as finance, IT, sports, medicine, and other industries and lets you get information quickly and work anytime [17]. Compared with the traditional computer industry, the construction of the mobile information communication system is shown in Figure 3. It is more difficult and more demanding. It is the information construction of large institutions including governments,

FIGURE 3: Structure diagram of the mobile information system platform.

enterprises, etc., which is very huge. The project needs to be gradually improved.

3. Ceramic Appreciation and Communication Management Mobile Information System

3.1. Hardware Design. The ceramic appreciation and communication management system studied in this article is based on mobile edge computing plus mobile information technology. Phone users can access networks through a variety of wireless sources, such as mobile terminals and Wi-Fi access points. There are many deployments on the access site side. MEC server is closer to the user [18]. The technology that will be widely adopted in the future is to use relevant software in the mobile network to define the network infrastructure combined with NFV technology, such as H3C VNF Manager, VSR, vBRAS, and other software, which can be used to centrally control the SDN controller to realize the MEC system development and realization. According to requirements, the MEC system can be installed on one or more ordinary server equipment near the access site using NFV technology, or the MEC server can be directly integrated into the access site. An access site can directly communicate with multiple MEC servers through 1 to 2 data hops, and different user services can be forwarded to different MEC servers for editing. The same MEC server can be a multiaccess site [19]. To facilitate the analysis in this study, we found that data from the same job can only be forwarded to one MEC server for processing, and the same MEC server can only process data from one company at a time. New arrivals are placed in the work buffer queue of the MEC server, waiting to be processed, and the queue can be managed in a first-in, first-out manner [20].

3.2. Software Design. The business logic and functions of the ceramic appreciation and communication business management redesign process are optimized for the older

business processes, mainly to improve the work of the initial art appraisal and art investment consulting companies [21]. In addition, a new business of artwork protection has been added to ensure that the artwork will not be damaged. The administrator provides the existing artwork to the system for storage, and after careful study and analysis by experts, it determines which set of artwork should be recognized and highlighted and can view pending audit requests, and experts appraise the age and art of the artwork value for verification. After the appraisal is completed, the expert submits the appraisal result online and there must be an identification structure, and another test will be done next time to confirm the correctness of the appraisal result [22]. After the evaluation, the management must submit and record the evaluation results. The process of evaluating art has not changed much from the traditional process. The main reason is that art lovers submit art evaluation requests online and managers accept the requests online and assign successful requests to designated experts [23]. First of all, the administrative staff will formulate an artwork protection plan. Next, select the artwork that needs to be protected and preserved to highlight it. The designated expert will formulate a protection plan based on the actual condition of the artwork. Finally, the personnel who take preventive and management measures will record the protection files on the system, as shown in Figure 4.

3.3. Mobile Information System. This article discusses in detail the mobile information system for ceramic appreciation and communication management, using mobile edge computing technology. Since ancient times, our country has collectively referred to pottery and porcelain as ceramics and it has been passed down [24]. Ceramics are made of high-viscosity, high-elasticity clay as the main raw material. They are opaque, have small pores, have poor water absorption, and have a muddy sound. Porcelain made of clay, silver, and quartz in our daily life is translucent, is nonabsorbent, is

FIGURE 4: Flow chart of ceramic appreciation and exchange business management.

anticorrosive, and has a firm and strong tire quality, and the sound that it blows out is very fragile [25]. Ceramics are our country's exquisite handicrafts since ancient times and have

been sold overseas and widely circulated. Our country's ceramics have always been loved by all parties at home and abroad, and it is a popular business card for our country in

the world. Therefore, we designed and developed the system on this basis, using the new mobile edge computing technology to make a systematic summary of ceramic appreciation, communication, and management [26]. The mobile information platform is a platform designed and developed on the basis of modern mobile Internet technology, 5G, mobile communication technology, etc. It can communicate messages on multiple platforms such as mobile phones, tablets, and laptops to achieve management, work, and mobile information of service and communication which provides high-quality, fast, and convenient management services to all parties in the society. We use the latest technology to design and develop the system, which can make our traditional artworks well protected, and show their beauty to everyone in the world. This is the original intention of our system design and development [27].

4. Data Analysis and Discussion

4.1. Data Analysis Based on MEC. MEC is an emerging technology developed since the 2010s. To solve the above problems, large-scale mobile networks will have certain computing and storage capabilities. Capable small cells are placed at the edge of the mobile network, so how can these small cells scattered on the edge be used? For now, it is important to provide users with low latency and high bandwidth and reduce the workload on the backbone network. Therefore, the MEC provided by the ETSI is a promising computing model. This model is based on the evolutionary architecture of 5G networks and is proposed for the purpose of deep integration of Internet services and small cells. Based on a summary of the migration task initially uploaded by each user, including data size, load operation (that is, the number of CPU requirements each specific application requires for its work), local runtime, and expected output data size, when the mobile network receives this information, the global controller will prepare each migration job by assigning each migration job to a smaller base station, which can achieve the lowest delay when processing user migration tasks. Table 1 details the task information in mobile edge computing.

Figure 5 compares the number of data packets transmitted by the full-time channel trust protocol and CoCo. From Figure 5, we can see that the full-time channel trust protocol actually sends more data packets from CoCo, because both protocols will eventually send all data objects. The reason for the result is that the process is completed to make full use of the delivery time. The reliable host transfer protocol adds some XOR-encoded data packets to send more data packets, sending a fully active message. There is no need to increase energy consumption. This is because the power consumption of the device depends on the timing of the wireless signal. Therefore, the power consumption of transmission and data packet transmission is approximately the same during the transmission time.

The basic cloud data center and MEC system architecture is the core of the technology in this article. Phone users can access networks through a variety of wireless sources, such as mobile terminals and Wi-Fi access points. The MEC

Server data center is connected to the main cloud data center. When the heavy computing service from the mobile terminal application reaches the MEC server, the MEC server is divided into multiple tasks and runs in the core cloud data center to perform operations. This is because a data center in the cloud can be considered a “resource” that consists of many servers in the background. So it can run multiple tasks from the parallel MEC server. Therefore, there is no reason to consider queue delays when delegating secondary tasks to the primary server. This is because the current research on the MEC system architecture is considered theoretical, so we refer to the processing and caching capabilities of the micro cloud to realize the computing and caching capabilities of mobile terminals, MEC servers, and cloud data centers. Therefore, it is necessary to compare the delays of various factors in the appeal. See Table 2 for specific comparison details.

There are many differences between EMC and the current popular cloud computing. MEC add wireless processing and other functions to store and process to create an open platform for embedding applications. They enable wireless networks and services via wireless APIs, integrate wireless networks, and server services and upgrade traditional wireless base station to smart base station. In terms of handling business aspects such as the Internet of Things, short videos, medical rehabilitation, sales, etc., most modern laptops can provide customized and specialized services for the industry. This improves the efficiency of network use and adds value. At the same time, the development strategy of laptops (especially geographical location) can achieve the advantages of low latency and high bandwidth. The MEC can obtain more accurate real-time wireless network information and location information, thus providing a more accurate service. Cloud computing is based on current technologies such as computers, clouds, and 5G. Now, with the continuous development of science and technology, cloud computing is also a technology that is very much needed in all walks of life. Table 3 shows the difference data between MEC and cloud computing.

The current popular method is to run the actual application environment on the computer platform, find out and test the actual operating environment through the network platform, and connect to the base station through mobile devices to create and deploy the most advanced server services. When a mobile user uses a computer workflow, the workflow service can be downloaded to the top server through the mobile network. In the edge cloud, the edge server receives the mobile user’s request and processes it when needed. Then, it returns to the mobile user through the mobile network. In this task, it is assumed that all services can be run locally or downloaded to the edge server. The research is to optimize the overall battery power consumption and the total time to complete the work. When mobile endpoint processes work in a mobile environment, we focus on smart algorithm design to improve efficiency for this problem. This is because many aspects need to be considered when optimizing these goals. In the optimization process, the calculation status of the limbs is first checked, and the final conclusion extends to the existence of many

TABLE 1: Information about each task in mobile edge computing.

Task	Data input size (MB)	Upload time/download time	Task and result delivery time	Small cell processing time (s)	Local processing time of user equipment (s)
t_1	35	3.5 s and 1.5 s	0.35 s and 0.15 s	20	110
t_2	40	4.0 s and 1.6 s	0.40 s and 0.16 s	18	90
t_3	40	4.0 s and 1.6 s	0.40 s and 0.16 s	15	60
t_4	30	3.0 s and 1.4 s	0.30 s and 0.14 s	19	100
t_5	25	2.5 s and 0.4 s	0.25 s and 0.13 s	14	50

FIGURE 5: Experimental results of the test platform: transmission rounds.

TABLE 2: Delay comparison of various factors.

	Mobile terminal	MEC server	Core cloud
Calculate ability	1	100–10 K	10 K–100 M
Storage capacity	1	100	100 K–1 M
Average delay	1	10	1000

TABLE 3: The difference between EMC and cloud computing.

Feature	Cloud computing	Mobile edge computing
Network deployment	Centralized: the data processing center is located in the cloud	Distributed: the server is located between the data center and the terminal
User distance	Far away from the end user	Close to the end user
Time delay	Higher latency	Low latency
Scalability	Data center only	Center and network edge
Storage capacity	High	Low
Power loss	High	Low

mobile devices and multiple mobile terminals, as shown in Figure 6.

The users of the ceramic appreciation and communication management system are mainly composed of four types of personnel: art lovers, art experts, and staff and back-end managers. Art lovers: most art lovers are mainly concerned about art appreciation, but they also appreciate art consultation and education services, including sharing valuation and exchange activities. Art experts: in analyzing

the initial business process, professionals are mainly responsible for signing and evaluating artworks. The art investment consultation includes lectures, public welfare training, and participation in art appreciation and exchange activities. Staff: for the analysis of traditional business processes, the organizer is mainly responsible for organizing and coordinating all activities such as art appreciation, communication, and training. Back-office management personnel: in the analysis of traditional business processes,

FIGURE 6: Comparison of several types of MEC.

TABLE 4: User role division table.

Character	Responsibilities or functions
Art lovers	The general role of the system, and the main user of the system, performing various activities
Art expert	Ceramic art appreciation experts or related artists participate in appreciation, training, and exchanges
Staff member	Related staff guarantee the development and design of the system
Backstage manager	The technicians ensure that the entire system is normal and some postwork

TABLE 5: Specific details of art appreciation.

Descriptive item	Description
Use case name	Art appreciation
The use case description	Describes the process of expert appraisal and appreciation of art
Participants	Managers, experts
Preconditions	Can read the art information and expert information
Postconditions (n)	Generate appreciation record information Successfully log into the system platform Set up the art crystal to be inspected Designated appreciation experts
Basic operation flow	Complete the authenticity, chronology, and artistic appreciation of artworks Reinspection Submit the assessment (appreciation) report

most of them are management art, collection of related materials, and post-system maintenance work. The specific roles involved in the ceramic appreciation and communication management system are shown in Table 4.

Porcelain is a priceless treasure in the Chinese tradition. It is usually priceless and exquisite. It combines ornamental value and practical value. It can be a container that people often use in daily life and can be used frequently in daily life. It can also be the artwork played by various merchant tycoons, which is invaluable and worth collecting. With people's understanding of art nowadays and investors' emphasis on porcelain, ceramic art has become a very

familiar category in the art industry. The importance of ceramics is increasing day by day, and more and more attention is paid to the investment, appreciation, and protection of ceramics and other related works of art. The specific details of ceramic art appreciation are shown in Table 5.

As more and more domestic and foreign art lovers like our country's ceramic art, the porcelain we now fire in our daily life is also very popular abroad, such as sinks and bathtubs, which are also very common in foreign countries and well received. From 2016 to 2020, our country's export of ceramics has increased year by year, bringing high

FIGURE 7: Export value and growth of our country's ceramic industry from 2016 to 2020.

development to our country's ceramic industry, as shown in Figure 7.

4.2. Discussion. This section is based on the design and development with EMC and is used for the experimental part of the mobile information system for ceramic appreciation, communication, and management. The experiment part uses a variety of different technologies to explain the system in detail, and some of the specific experimental data are explained in detail through tables and diagrams. MEC is based on computer development of the 5G network architecture and is proposed for the purpose of deep integration of Internet services and small cells. Based on a summary of the migration task uploaded by each user at the beginning, including data size, load operation (that is, the number of CPU requirements each specific application requires for its work), local runtime, and expected output data size, using this technology in our traditional ceramic appreciation and communication management, combining the latest technology with our traditional culture, and using the system in our daily art exhibitions make the exhibition more systematic and organized.

5. Conclusions

The aim of this article is to design a mobile information system for ceramic appreciation, communication, and management, using the current popular mobile edge computing technology to design and develop the system. It allows users to experience a very high-quality network experience, such as speeding up network loading, service response, application downloading, and other functions. In general, mobile information is the realization of various information applications based on mobile terminals such as smart phones, tablets, smart watches, and technologies such as telecommunications and the Internet and finally allows you to use mobile devices around you at any time. Combining these with traditional ceramics in our country, the mobile information system for ceramic appreciation, communication, and management designed and developed is now in line with the current development. Although our system is

still at the theoretical level, we must develop it. It will be widely used in the ceramic industry for a long time in the future.

Data Availability

No data were used to support this study.

Conflicts of Interest

The author declares no conflicts of interest.

Authors' Contributions

The author has read the manuscript and approved it for submission.

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