

QoS Guarantee Framework of English Literature Course Online System Based on Concurrent Optimization Network Environment

Yaqin Zong

Nanjing Institute of Visual
Arts, Nanjing, China, 211215

Abstract: First, the initial connection isolation method ICS is established to separate false connections generated by malicious network behaviors from normal established connections, and form a controllable initial connection table. A strategy combining extended RSVP protocol and DiffServ model is designed to ensure the realization of QoS in large campus network. The simulation test results show that the application of this model can effectively improve the QoS of large-scale campus networks, and the problems that need to be paid attention to when running the parallel operation of the database management system correctly in the network environment. Especially to prevent data corruption and loss when developing multi-user systems.

Keywords: QoS Guarantee Framework, English Literature Course, Concurrent Optimization Network Environment

1. INTRODUCTION

QoS (Quality of Service, referred to as QoS) refers to the performance attributes exhibited by the data packets of network services or applications when they pass through one or more networks [1]. And a collection of techniques such as packet loss and their parameters. Digital campus involves all aspects of school teaching, life, communication, scientific research, security [2], etc. It is the main and key content of educational informatization, and has high application and research value. At the same time, due to its rich connotation, it integrates various information resources and ensures smooth information [3].

The main purpose of organizing and carrying out the teaching practice of English literature courses for college students in colleges [4] and universities usually involves two specific aspects: one is the basic "listening, speaking, listening, speaking, and listening skills" for college students in colleges and universities [5]. Reading and writing" language practice and application ability level is properly cultivated. Under the current background of "Internet +", the "online-offline" blended teaching of college English [6] courses has flourished. The Outline of the National Medium- and Long-Term Educational Reform and Development Plan pointed out that no matter where China's economy is headed [7].

Such as: passive off-line intrusion detection, content auditing and billing systems, active on-line state-based firewall [8], intrusion prevention and network address translation. These systems usually use a hash table to manage concurrent connection sessions, forming a connection table. According to the field test results and the parameter settings of the existing network [9], we initially planned to implement optimization and adjustment in terms of multi-carrier activation, service offloading, parameter optimization, and wireless environment optimization [10], but the results of the first simulation test did not meet the requirements. By definition [11], a transaction is the unit of integrity and recoverability, and the execution of a transaction is the transformation of the database from one consistent (consistent) state to another consistent state [12]. That is, it is true when a transaction executes in isolation.

It can also reflect the English professional quality of college students. Therefore [13], teachers must pay more attention to English reading teaching, and use the online and offline teaching mode to break the limitations of time and space, break through the shortcomings of traditional English teaching [14], and promote English reading teaching. Diversified development of models. With the continuous development of campus network, a large number of network application technologies with high real-time requirements have appeared [15], such as video conferencing, video-on-demand, online education and other real-time multimedia applications. QoS is not only a concern in the Internet. The traditional digital [16] campus system adopts the mode of its structure limitation and autonomous management, which makes its limitation more and more prominent in information sharing and resource utilization [17].

At the same time, because each school develops the digital campus system independently, there are disadvantages such as low resource utilization [18], difficult maintenance, high overall cost, and repeated construction. As well as the construction and development level of their own comprehensive language communication practice ability, it is impossible to achieve [19] gradual improvement and optimization. Under the direct influence of the above factors, the vast majority of colleges and universities in my country are in the process of organizing and implementing the teaching activities of English literature courses [20]. At present, the blended teaching carried out in colleges and universities in our country is only an aid to classroom teaching, and the traditional "lecture-type" [21] teaching mode and method still dominate, which overemphasizes teachers' "teaching" and ignores students' autonomous "learning". It is difficult to meet the requirements of English talents for the development of globalization and digital society [22]. When connection management runs in a high-speed network environment, especially when network attacks occur, connection management will face great threats and challenges [23].

The network measurement results show that the number of concurrent connections in the high-speed backbone network can reach hundreds of thousands, or even millions to one. This

will result in [24] a huge join table and inefficient lookup. From the information provided by the user, we can see that the minimum guaranteed uplink rate of each video surveillance terminal is 500kbps [25]. Through our on-site test, we found that the actual rate of each user can meet the requirements after reaching 400kbps. If it is necessary to ensure that 15 users can concurrently [26] Do HSUPA business. A set of transactions if each transaction is executed concurrently and interleaved, and the execution of each transaction is independent of each other. Since they are executed concurrently and interleaved, they may interfere with each other. Causes inconsistencies in the database state.

2. THE PROPOSED METHODOLOGY

2.1 The Concurrent Optimization Network Environment

Connection management is the basis for semantic-level traffic analysis of network devices, and has been widely used in various network security systems, such as firewalls, intrusion detection system ports, and so on. First, enable three carriers in the base station here. After the three carriers are enabled, some parameters need to be optimized and adjusted, and the function of multiple HSUPA services being distributed among carriers is realized by realizing the CAC function of the maximum number of users. Causes individual transactions to run incorrectly or produce incorrect results. Concurrent operation of a collection of transactions is correct and equivalent to the serial execution of some sequence of these transactions. The concurrency control mechanism is the DBS system component responsible for this task. Application-oriented colleges and universities can put relevant videos on the Internet when teaching English reading, so that English reading knowledge can be widely disseminated, and students can learn English reading through the video teaching mode of fragmented and thematic explanations.

Regarding the organization of the connection table in connection management, many works have discussed the optimal design of the connection table, and strive to reduce its access operation overhead. For connection tables commonly used in network packet processing. But the test result found that it still could not satisfy the simultaneous upload of 15 UPA services on the vehicle inspection line, and the multi-user program running on the network was compared with the program running by a single user. The difference in design technology is mainly to solve the problem of resource sharing. This can be achieved by the system's concurrency control mechanism to properly arrange the scheduling. And there are cases of dropped calls. On the network management, we real-time monitoring found that not only the 15 HSUPA users in the 2 and 3 areas of the vehicle inspection line, but also other 3G users that exist in the area simultaneously perform voice and data services. had an impact.

Compared with the previous teaching mode, the online and offline hybrid teaching mode will be more precise when the teaching mode is cut in, and it can also expand the learning space of students to a certain extent. Malicious network behaviors, especially SYN flooding attacks, have strong destructive power to connection management.

2.2 The English Literature Course Online System

The main data flow plays a decisive role in various applications, and its real-time performance is seen by users as the performance of the system's usability and usability. Handling this problem is not only critical to the original system, but also the first key to various applications under the cloud platform. Timely and effective communication activities based on specific subject knowledge content elements have caused extremely significant adverse effects, leading to the fact that students in colleges and universities in the process of specifically participating in the learning experience of the knowledge content of English literature courses, once encounter specific learning understanding and cognition Sexual problems or dilemmas.

As a result, students cannot construct and obtain a stable and strong learning experience atmosphere in the process of actually participating in the learning experience of English literature course knowledge content. Teaching evaluation is the evaluation of students' learning effect and teachers' teaching work process. Teaching evaluation is an important means to test the teaching effect. Teachers can timely improve and perfect the method and content of teaching design through the feedback of teaching evaluation. Application-oriented colleges and universities can design a special extracurricular English reading teaching APP, and students can directly use their mobile phones to memorize vocabulary and grammar encountered in English reading training. In addition, the student learning record section can be set in the APP.

2.3 The QoS Guarantee Framework of Online System for English Literature Courses

Specifically, the integrated service requires all routers to process the signaling messages of each flow on the control path and maintain the path status and resource reservation status of each flow, and perform flow classification, scheduling and buffer management on the data path. The integrated service provides the QoS capability for the IP network by means of the reservation setting and control provided by the Resource Reservation Protocol (RSVP). Amendment requirements are sent to the service decision-making platform through the campus cloud OpEx interface to achieve ratings for applications, thereby quantitatively managing and improving service quality.

It is related to different service publishers. To organize and carry out the teaching design of English literature courses in the context of the development of online education, we should gradually get rid of the intervention and restraint of the traditional teaching practice ideas of English literature courses, and combine the development and evolution characteristics of the specific expression of English literature and art in a specific historical development stage.

3. CONCLUSION

By studying the technical characteristics and service capabilities of various new elements of campus cloud integration, the node snapshot mechanism is proposed as the presentation layer technology of user experience. Then, take the data flow characteristics in the campus cloud as another main line, and then put forward the worst response time rule based on QoS guarantee. And from the four aspects of teaching resources, teaching design, teaching implementation, and teaching evaluation, an "online" is constructed. The

guarantee system for the implementation of the blended teaching model.

4. REFERENCES

- [1] Zhou Zeqiang. Distributed ultra-high-definition video processing system for 5G network [J]. Television Technology, 2021, 45(9):4.
- [2] Li Zhijie, Wu Qi. Optimization scheme of wireless network system based on high concurrency [J]. Satellite TV and Broadband Multimedia, 2020(18):3.
- [3] Ji Chengjian. A system QoS setting method based on token bucket algorithm: CN110830296A[P]. 2020.
- [4] Yu Jian, Yang Xiaodong, Liu Sunfa. An efficient bandwidth admission control method for aggregated flow under cloud computing [J]. Journal of Sanming University, 2020, 37(2):8.
- [5] Zhang Xialing, Hu Yan. Influence of nursing intervention based on the concept of enhanced recovery after surgery on pain visual analogue scale and complications in infertile patients undergoing laparoscopic exploratory surgery [J]. 2021.
- [6] Zhang Yanan. Research on high concurrent access optimization method of NB-IoT network based on multi-service [J]. Telecommunications Engineering Technology and Standardization, 2020, 33(8):4.
- [7] Zhang Jinsheng, Liang Linchang. Research on performance optimization of online mental health assessment system based on time-sharing and segmented design under high concurrent users [J]. Software, 2020, 41(9):3.
- [8] Lu Xiangfeng, Sun Qingtao. Method and device for providing QoS in concurrent task processing system: CN111381941A[P]. 2020.
- [9] Peng Shuping, Li Zhenbin, Li Lei. A packet processing method, equipment and system for realizing QoS guarantee: CN110535782A[P]. 2019.
- [10] Yu Min. Cloud resource orchestration and optimization based on ARIMA [D]. Beijing University of Technology, 2019.
- [11] Wang Yanyan, Chen Shuhui, Lin Zhiqiong, et al. Effect of multidisciplinary teamwork enhanced recovery surgery concept nursing on postoperative pain and rehabilitation in children with inguinal hernia [J]. 2021.
- [12] Wei Zhe, Shi Dongdong, Wang Nengcai, Zhao Gang, Wang Yuzhen, Shi Hengbing. Prediction of diabetes complications based on BP neural network optimized by evolutionary thinking algorithm [J]. China Medical Equipment, 2020, 17(10):4.
- [13] Zhang Lihua. The effect of comprehensive nursing on preventing postoperative deep vein thrombosis after lower extremity fractures [J]. 2020.
- [14] Yang Hailong, Sun Qingxiao, Zhang Jingyi. A GPU Quality of Service Guarantee Method Based on Streaming Multiprocessor Core Exclusive and Reservation: CN109445565A[P]. 2019.
- [15] Guan Haibing, Lu Qiumin, Yao Jianguo. A GPU virtualization QoS control system and method based on resource sharing adaptive configuration: CN108733490A[P]. 2018.
- [16] Li Danchao, Luo Yuyuan, Wang Keqiang, et al. System and method for message processing optimization based on NIO for big data distributed systems: CN110134534A[P]. 2019.
- [17] Liu Qingyun, Wang Peng, Zhou Zhou, et al. A fast flow table lookup method and system in a high concurrency network environment:, 2019.
- [18] Yang Shanshan, Wu Jiangning. The guarantee system for the implementation of the "online and offline" blended teaching mode of college English courses [J]. Journal of Wuzhou University, 2020, 30(5):7.
- [19] Hu Heng. Teaching Design of English Literature Course Based on Network Environment [J]. English Square: Academic Research, 2012(5):2.
- [20] Liu Yan. Teaching Design of English Literature Course Based on Network Environment [J]. Journal of Changchun Institute of Education, 2014(1):2.
- [21] Zhang Jielan. Reflections on the construction of online platforms for "Basic English" courses in colleges and universities under the background of "Internet +" [J]. New Course Research: Mid, 2017(12):2.
- [22] Jing Ran. Teaching Design of English Literature Course Based on Network Environment [J]. Full text version: Education Science, 2016.
- [23] Lu Yanyang. Thoughts on the Construction of Online Platforms for "Basic English" Courses in Colleges and Universities under the Background of "Internet +" [J]. English Square, 2020, No.120(12):76-78.
- [24] Wu Zhichen, Shou Guoji, Lei Baihuan, et al. An SDN-based cloud-network integration QoS service guarantee system and method:.
- [25] Yang Yang, Li Kejian, He Dianhua, et al. Research on the Implementation of QoS Guarantee Policy in Large Campus Networks [J]. Computer Engineering and Science, 2010.