Standardization Construction of Fire Information Communication Operation and Management Based on Remote Communication

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Abstract. With the continuous development of modern information and communication engineering, the management of the whole process of the standardization construction of fire information and communication operation management pays more attention to the intensification, standardization and standardization of project management. This is because fire fighting communication is an important part of fire fighting work and is the nervous system of fire fighting dispatch and organization and command. Therefore, the whole-process management can be sorted out, standardize the management process, establish a centralized management platform, and cover various aspects such as reserve project initiation, plan issuance, construction implementation, acceptance and payment, etc. However, in the standardization construction of individual fire information communication operation and management, the standardization construction of communication management system has not received high attention from relevant staff. This paper analyzes the current situation of standardization and disorder of fire fighting information communication operation management based on remote communication, and puts forward suggestions and solutions, which are conducive to the sustainable development of fire fighting industry in the future.

1. Introduction
Fire information and communication is a symbol of modernization of fire fighting and an important hub of fire fighting system. How to prevent the fire and reduce the harm caused by the fire are the key issues of the society. At present, information and communication technology has been widely used in our society. Information and communication system is related to all aspects of people's life [1]. With the continuous improvement of the application level of computer Internet technology, the standardization of system architecture based on artificial intelligent processing system architecture mode has been carried out [2]. This is because fire fighting communication is an important part of fire fighting work and is the nervous system of fire fighting dispatch and organization and command. It is urgent to establish a set of communication management system standard system suitable for fire fighting information and communication specialty by carrying out the research on standardization construction of fire fighting information and communication management system. As an important part of information work, standardization construction of fire information communication operation and management has become more and more important. Therefore, it is of practical significance to explore its standardization construction.
2. The Necessity of Standardized Management
An important indicator to measure the communication capability of fire fighting information is the operation quality of the system. Specifically, it refers to the rapid, accurate communication and stable transmission of various communication information to achieve high-quality operation quality of the communication system. Keeping pace with the times, bringing forth the new, and constantly creating their own brilliant achievements, therefore, fire information communication is an important part of fire control work. Therefore, the whole-process management can be sorted out, standardize the management process, establish a centralized management platform, and cover various aspects such as reserve project initiation, plan issuance, construction implementation, acceptance and payment, etc. Keeping up with scientific management can effectively ensure the long-term and stable operation of advanced communication equipment and continuously improve the overall operation quality of the communication system so as to truly achieve the positive effect of improving the command and dispatch capability of fire fighting communication and serving the development of fire fighting industry [3]. However, in the standardization construction of individual fire information communication operation and management, the standardization construction of communication management system has not received high attention from relevant staff [4]. Fire information communication must adopt more advanced and unified information technology methods, in order to better manage the increasingly large and complex communication network effectively. On the other hand, the investment in the construction of fire information and communication hardware equipment is relatively large. If managers lack correct and scientific awareness and methods of maintenance and management, the service life of communication equipment will be shortened and damaged artificially. Clear division of labor; Clarity of responsibilities, realization of equivalence of operational management responsibilities and rights, and conformity of implementation process and results with expectations.

3. Problems in Fire Information Communication

3.1 Software development cannot keep pace with the times
Practice has proved that scientific management method is an important means to achieve twice the result with half the effort in operation and maintenance management. As far as fire fighting communication is concerned, the standard to measure its capability is the system operation quality, that is, the accurate and rapid communication and stable transmission of communication information, thus realizing the high-quality operation quality of the system [5]. The intelligence level of communication network and its management information system must be improved to better provide strong support for a strong smart grid. At present, the software development technology of fire fighting industry lags behind the needs of the times and cannot keep pace with the times. Moreover, standardized management emphasizes the sustainability of project management and focuses on improving management quality and overall level. Technicians want to realize the work goal of standardization construction of enterprise internal communication management system. Fire fighting units must attach importance to and maintain each link, and combine advanced equipment with scientific management to ensure long-term and stable operation of communication equipment. The specifications ensure the normal operation and maintenance of the system, as well as management standards related to the operation process and operation specifications. As a service support unit, the Communications Department must establish a technical service support mechanism to find problems, raise problems, research problems and solve problems. Timely and effective supervision of the progress of the project, to ensure the successful construction of the project, and to ensure its quality [6].

3.2 Shortage of IT talents
With the continuous development of modern information and communication engineering, the management of the whole process of the standardization construction of fire information and communication operation management pays more attention to the intensification, standardization and standardization of project management. Therefore, technicians engaged in fire fighting communication
must establish correct awareness of operation, maintenance and management. The professional quality and technical level of the staff need to be improved, especially the lack of high-level compound talents, which has a negative impact on the human resources of the fire fighting industry. To solve the problem of information isolated island between communication management systems at all levels. Only in this way can the maintenance management plan scheme be better implemented and the maintenance management strategy be formulated [7]. However, there is a lack of understanding of fire fighting knowledge and no professional training and systematic study. On the contrary, the staff with fire fighting knowledge lack modern information and communication technology knowledge. Check whether the indicator lights of various equipment are in normal condition, and check the equipment failure alarm online so as to take corresponding disposal measures. Timely and accurate reflection of relevant statements and project information, to meet the standards of project assessment and review, to promote the stable development of its project construction, has become a major boost to the development of the project.

3.3 Lack of effective information management system
Judging from various facts, adopting effective management methods can promote the promotion of operation and maintenance management. However, these communication-related standards lack an overall coordination and operation mechanism, and communication departments at all levels can make their own plans or choose different construction standards, thus they cannot realize interconnection and information sharing among themselves. At the same time, the information communication operation and maintenance management is also a long-term, meticulous and systematic work, which must be done consistently and solidly to ensure good results. Lack of information management system can lead to disorder of information transmission and failure of work according to laws. However, what technical staff need to pay close attention to is that the setting of the standardization construction scheme of the communication system should meet the basic working requirements for the operation of the international standard communication system [8]. Half of the standard specifications are concentrated in the operation management specifications and are mainly related to communication equipment/facilities and communication services. Therefore, we should pay close attention to these incipient and tendentious problems in the management team of operation and maintenance, so as to grasp them early, truly and actively, and prevent the spread and development of the problems from causing harm. Only in this way can the overall operation quality be improved and the positive role of fire service be brought into play.

4. Standardized Construction of Operation Management

4.1 Building a scientific management system
Realize the standardization construction of communication management system in three levels of technical standards, management standards and working standards [9]. To clearly define the personnel, posts and responsibilities for the operation, maintenance and management of information and communication, strictly implement the post responsibility system, implement who is in charge and who is responsible, and which department is in charge and which department is responsible, so as to ensure the orderly and rule-based management. Information and communication software is the key content to be built in fire fighting work, and is the prerequisite for the successful and effective operation of information construction. It can speed up the work process of information construction in fire fighting. To realize the closed-loop management of communication projects and reasonably optimize the allocation of resources. The basic contents of the management system can be divided into five classic operation sections: basic technology implementation, scheme planning, engineering framework, maintenance management and functional application. And to establish a standardized information management system, timely supervision and control, comprehensive implementation of project management and control, improve the level of standardization of management. Therefore, it requires the relevant staff to have a strong sense of responsibility, and the maintenance and management of information communication is also a meticulous, long-term and systematic work. Timely and
transparent information transmission and sharing mechanism, to complete the interconnection between vertical and horizontal information, reduce the complexity of network management. To standardize the behavior of the whole process control, to ensure the standardization of the whole project control work, to achieve the standardization of management work.

4.2 Standardized management and construction of project teams

The competition of science and technology informatization is the competition of talents. Therefore, the recruitment of compound talents cannot be limited for the development of fire fighting. In the information and communication engineering, the whole process management requires the management personnel of all departments to learn and implement the standardized management system together, earnestly study the assessment mechanism and plan preparation, comprehensively promote the comprehensive plan, and construct the whole process management system. Always keep learning business knowledge and improve the sense of urgency and responsibility of business technology. Therefore, it is necessary to pay attention to tendentious and incipient problems in the management, maintenance and operation. We should grasp the problems really, early and actively to prevent the problems from spreading and causing harm. Strengthen the management communication between various departments, promote communication, discover and solve problems in time, and continuously optimize and upgrade the management plan. Attracting talents, recruiting talents and making rational use of talents have become the focus of the fire department's human resources system and the establishment of a complete human resources system. Seek various channels and forms to improve communication technology maintenance and management capabilities. Communication technicians should establish the awareness of continuous learning and actively base themselves on and approach actual combat. Set up a standardization expert group to formulate a detailed work plan and organize the implementation of various tasks according to the work plan [10].

4.3 Establish an information network platform

In order to do a good job in the operation and maintenance management of fire fighting information and communication, and effectively improve the operation quality of information and communication equipment, it is also necessary to have excellent business technology and working ability, so as to better implement the maintenance and management plan and creatively perfect the maintenance and management methods. In the process of project management, managers should strive to learn the standard content of information management, master the skills of information management, and increase the attention to the needs of project management.

Using Delphi's client/server function, client/server mode applications can be developed on local databases or remote database servers. A powerful function of Delphi is that it can easily modify the application program based on the local desktop database system into the application of client/server mode. Enter a date in the specified format in the edit box to display the data stored at that time. The program flow chart is shown in fig. 1.

![Figure 1 Block diagram of remote database program](image-url)
Information and communication technology has been widely used in various fields, and is also reflected in the fire protection system. Organize relevant units to carry out relevant research, track the progress of relevant technical standards at home and abroad, and complete the drafting of standards. We should also establish a technical service guarantee system and a guarantee mechanism for finding, proposing, researching and solving problems. To further improve the mechanism of standardized operation. Perfect the standardization mechanism, can form a strong team of experts, the purpose is to carry on the overall standard to the related work, will work the concrete content to be clear. The personnel involved in the standardization construction of communication system shall verify the scheme for many times to find out hidden problems, optimize and adjust it again to ensure that the scheme can meet the needs of actual work and improve the use efficiency of communication engineering.

4.4 Advanced application of data

The information in the communication management system is transmitted in the form of data files and then stored in the functional blocks implemented by basic technologies. Constantly improve their own views, in-depth study of project estimation knowledge, can accurately estimate the project, pay attention to the formulation of the project comprehensive plan and piecewise plan. Some units have invested heavily in hardware equipment, but neglected the development of software. A standardization promotion group composed of relevant experts was set up to carry out the standard promotion work in a planned and step-by-step manner and to strengthen the understanding and comprehension of the standards by the communication departments at all levels.

Each timer must be attached to the form, but it is not visible at run time. The two most important properties of timers are Enabled and Interval. In the "remote file transfer program", a total of 6 timers were used to complete the "automatic file transfer" function. Since the preset primary key of the database is "time", the query function can be realized by inputting the value of the comparison primary key (time) and jointly using Findkey and Gotonearest methods. The running process of the program is shown in Figure 2.

![Figure 2 Schematic diagram of data query function](image)

Today's fire fighting work must meet the needs of social and economic development, so it is necessary to adopt the strategic policy of strengthening the police through science and technology, and strengthen the effect of applying science and technology and information communication to fire fighting. Set up various types of data sets such as photos, elevation diagrams, single line diagrams that conform to logical relationships to meet the requirements of mutual mapping, real and complete reflection of site management, inquiry and retrieval. In the normal operation of the remote fire monitoring terminal, if there is a fire situation, the relevant personnel sometimes have no time to carry out fingerprint identification authentication and key operation, which will have a great potential safety hazard [24]. Management of terminal communication access network. After an enterprise establishes a communication management system, the maintenance and management standards for the whole system should also be formulated around these three sectors to reach the standard management level.

5. Summary

In short, information communication is very important in fire fighting, and the standardization of its operation and management is the inevitable trend of development. Through the whole process of standardized management, it can significantly improve the quality and level of the whole project.
management, and is conducive to the construction of standardized management systems and systems. In the intelligent analysis part, according to the formation of the knowledge base and the construction of the knowledge base model, the working state of the fire alarm host is studied, the structure model of the fault base is given, and a fault diagnosis and analysis method based on the knowledge base is proposed. Technical staff should continuously enrich their skills in communication technology application through various modern information acquisition channels. This paper analyzes the current situation of standardization and disorder of fire fighting information communication operation management based on remote communication, and puts forward suggestions and solutions, which are conducive to the sustainable development of fire fighting industry in the future.

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