

Application of Network Planning Technology in Communication Engineering Projects

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Abstract. The development of information technology in the network today, in order to guarantee communication engineering project construction quality, need to attach importance to the further application of network planning technique, based on this, this paper combined with the concrete practice, summarizes the effective practice techniques, hopes to raise awareness, analysis to ensure that the communication engineering project construction level enhances unceasingly.

Introduction

At present, the number of communication engineering projects is increasing, and most of them involve residents' communication and production life. By applying the network planning technology to the communication engineering project, it can ensure the smooth construction of the project, improve the security and reliability, and thus obtain greater economic and social benefits.

Advantages of network planning technology

Compared with traditional project planning, network planning technology has significant advantages, which are mainly reflected in the following five aspects. First, construction visualization can realize the whole process of networked monitoring during construction, and the construction project can be regarded as an organic whole to ensure the intuitive, comprehensive and simple process detection. Second, it is conducive to the comparison of various design schemes and the selection of the best construction scheme. Thirdly, ensure the controllability of construction time and provide effective parameters for time calculation. Fourthly, the construction link should be adjusted in a timely manner to minimize the impact of interference factors, and the construction scheme should be adjusted timely according to the changes in the construction situation to ensure the smooth construction. Fifth, the use of network technology, improve the utilization rate of computers in construction management, improve the level of management, ensure the advanced nature of construction management, and provide development space for the information management of communication engineering.

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Application of network planning technology in the progress control of communication engineering. Ectively modify the project schedule.For communication project progress control

mainly includes the design of the link, preparation stage, construction progress, acceptance inspection, etc. The whole process of control, communication engineering monitoring, to take advantage of the network technology of the project to conduct a comprehensive planning, combined with the actual situation of the construction of the detailed construction plan, and planning guidelines, make full use of the theory of control loop, in a timely manner to correct the problems and hidden dangers existing in the project, continuous adjustment and correction of the construction progress, ensure construction scheme to meet the requirements of the project and requirements.

Control the construction progress. When communication engineering USES traditional construction management methods to control the project, it mainly USES gantt chart to monitor and analyze the project, reasonably allocate the elements of capital, resources and labor, improve the efficiency of resource allocation, and further strengthen the management level of the project. However, it is difficult for gantt chart to give full play to its advantages in large and complex projects, information coverage is not complete, it is difficult to make full use of computers to process data, and it cannot meet the requirements of the development of modern network technology. At this time, the advantages of network planning technology are obvious, which can effectively integrate and link various factors of the project, and make use of modern computing, network and information technology to comprehensively analyze various project contents, timely find the deficiencies in the schedule, prevent the impact of blind construction, and reduce or avoid economic losses. When conducting network planning technical management on project progress, common operation methods include: plan review, key line method, etc. Under the influence of unchanged project quality, the construction time is greatly reduced, and the construction cost is reasonably controlled to reduce the project cost.

Application of network planning technology in communication engineering. The generation and development of network planning technology cannot be separated from the needs of social and economic benefits. Therefore, the fundamental goal of using network planning technology is to reduce the cost of project engineering projects to the lowest level, reasonably regulate various factors on the premise of guaranteeing the quality, and further guarantee the economic benefits of projects.

For example, when designing a communication project, network planning technology is used to solve the problem of s-point wireless network coverage. The first choice is to use network planning technology to design the reference station of point S, and ensure sufficient stability of voltage before construction, and then carry out construction according to the design scheme. Based on the decomposition of various purposes, for project engineering detailed list, according to the requirement of construction practice of various factors and the relationship of the project and determine its sustainable length, on this basis, a preliminary draft project network layout, reasonable network time and time, choose the key circuit, determine the optimum construction scheme.

In communication engineering, network planning technology is mainly used to draw network map to meet the actual requirements. For example, when effectively decompression machine room construction and communication equipment installation projects, emergency situations can be avoided or measures can be taken to reduce losses, effectively ensure the progress of project construction, to ensure that the project can be completed on time within the period. By using the content decomposition of the project, the logical relationship between the project elements can be clarified, and the realization conditions of the project can be combined to ensure the fit between the network diagram of the base station construction and the actual situation. Network planning technology can also be used to check and analyze engineering projects, find out the factors that affect the interference, and further improve the efficiency of the overall project operation.

How to optimize communication engineering projects. Optimize network design drawing. The construction of communication engineering is based on the drawing. The accuracy, standard, scientific and meticulous of the drawing can be improved by using network design technology. In the modernization project, double code network diagram is often used to express the progress of the project. In different communication engineering, there are different requirements and actual construction conditions, so it is necessary to draw diversified, complicated and large-scale communication lines. Therefore, when drawing with double-code network diagram, it is necessary to fully follow the legal requirements of the project, truly reflect the specific process of the communication project, and reasonably control the construction progress.

Optimize the construction cost of communication engineering. In order to further improve the economic benefits of communication engineering, it is necessary to improve the cost control rate on the actual basis and reduce the possible risks of investment. In network planning technique for technical support, to find the project plan by using network graph line guarantee progress plan is the best choice, further determine the project plan and project construction results fit, assessment of engineering materials, the consumption cost, and the fitness of labor required, preferred to choose the best construction scheme, on this basis, combining with the construction details, design requirements and provisions of the contract network chart drawing standards, design reasonable construction schedule, thus effectively reduce engineering construction cost.

Optimize the resources of communication engineering. In the construction of communication engineering, the site resources should be reasonably allocated and appropriately allocated to meet the demand of effective utilization of resources, so as to reduce construction consumption and improve economic benefits. The direction of communication engineering project management is developing towards modernization, automation and intelligent scale, so the management requirements are also improving. On this basis, it is necessary to effectively analyze the materials and manpower required by the project, reasonably classify resources, and improve the efficiency of resource utilization. Give full play to the role of network planning technology in the communication engineering project, and increase the economic and social benefits of the project.

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Determine objectives. After fully determining the targeted technical application objectives, follow up the operation, analyze the specific requirements and engineering details of the project, and ensure that the construction is always progressing in the right direction. For example, the cost management cost of the project can be divided into various engineering objectives, and network planning technology can be implemented around the project objectives.

Project decomposition. In order to highlight the value of network planning technology in communication engineering projects, the design should be based on the decomposition of engineering projects to ensure that the technology can meet the target requirements and enhance the operability of practice. Subdivide the content of the first, parallel and subsequent operations, and take the detailed engineering project as the object of technical application to ensure the accurate implementation of the project. Usually, three point estimation method and single point estimation method can be used to provide support for the project.

Draw network diagram. In communication engineering projects, network planning technology should be used to draw network diagram efficiently, and the convenience of operation and use should be improved by drawing network diagram in detail, so that it can play a guiding role in the application process to achieve the desired goal. When drawing the network diagram, it is necessary to make reasonable design according to the working time to ensure the detailed and

comprehensive network structure diagram. At this time, the structural drawing can be drawn by the inverse and forward pushing methods to ensure the high efficiency of drawing and match with the construction project.

Determine the critical route. On the basis of the detailed calculation of time, the network diagram can be applied to fully select the appropriate circuit and the critical circuit. The accurate selection of the line is used to increase the strong constraint on the communication project, ensure the reliability of the follow-up management, and provide a more reliable time limit plan selection for the whole construction.

Conclusion:

In short, the implementation of the project is for communication, its difficulty is big, especially as a knowledge intensive industry, its execution also need to consider what is more, with the aid of network planning technique for effective management and control is also very necessary, need to around the various basic point content in detail analysis, comprehensive promote overall implementation efficiency.

References:

- [1] Li Yuan. Application of network planning technology in communication engineering projects [J]. Communications world,2017(21) 29-30.(In Chinese)
- [2] MingFeng Zhou. Application of network planning technology in communication engineering projects [J]. Information communication,2015(06) 174.(In Chinese)
- [3] Shanshan Yang, Rongpu Feng, Fanbo Zhao. Application of network planning technology in communication engineering projects [J].Electronic production,2015(05) 151.(In Chinese)