The Research on the Model of the Military Informationization Construction of Logistic Management

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Abstract   Starting from the gist of the military informationization construction, this paper puts forward some essential requirements of the model choice of the military informationization construction, and proposes basic structure of this model. The author believe that this type model include five evolutionary stages (integration, amalgamation, virtualization, SOA and automation), which are based on the data center. This type of model is the inevitable choice of the military informationization construction of logistic management.
Key words   Military; Logistic Management; Informationization; Construction

1 Introduction

In order to speed up the process of our military logistic transconformation from traditional to modern, propel substantial progress about the informationization of logistical support means and the scientific development of logistics management. The research on the pattern for the military informationization construction of logistic management problem is the current and urgent practical problem which is in dire need of solution. The current study mainly concentrate on the implement of the software for the practical level in the postwar, and at the same time it mainly shows us pieces of exploratory articles or how to parse policy documents, that's means the model of the military informationization construction of logistic management which is lack of the comprehensive and systemic theory guidance. The paper start from the essential requirements of the model choice for the military informationization construction, and proposes some major types of this model. I consider that these types of model which are based on the data center are the inevitable choice of the military informationization construction of logistic management.

2 The Essential Requirements of the Model Choice for the Military Informationization Construction

"Model" as it is often called, generally refers to the standard form of something or does the things which you can follow[1]. The military informationization construction of logistic management means the method of utilizing and distributing the resources, the lines and ways which we take, its content inculudes: construction goal, construction way, the scope of the resource and the concern point and so on.

Depend on the 'six key points' of the military informationization construction[2], the author hold that we must follow the basic demand below when we choose the pattern which is for our military informationization construction of logistic management:

(1) Developmental demand

The military construction and informationization are both the start point and the end point of informationization construction of logistic management. It based on the information technology with the advanced management ideas. Therefore, it will cause the development of the model for the informationization construction of logistic management since the changing requirement of military, the methods of technology and the development of management guidelines. At the same time, the management requirement which from the internal logistic such as enhancing the efficiency of the management, optimizing the support services and increasing the support efficiency may push the managerial model of informationization construction forward. Two above-mentioned common functions would make us choose the model of informationization construction for the logistics management with the developmental point of view.

(2) Integratability demand

Informationization construction is not a mere technicality, that's a comprehensive system of people,

business and technology. It refers to so many things such as business strategies, operation, process and organization. The development of the pattern for the informationization construction of logistic management demand us to merge with progressive modern management ideas, ways and means, in order to synthesize several modern advanced technologies, integrate the stages of management with inside and outside of the logistic which evolve in the direction of highly integration.

(3)　Open-ended demand

As a result of the technology and extroversion of construct resources, the informationization construction of logistic management need to choose a model which could fully embodies the open-ended construction ideas, it is the impersonal requirement of the best use of limited resources and improve the construction of technical level.

(4)　Security demand

Because the Informationization construction of logistic management could play an important role in our military informationization construction of logistic management, which military attribute has strong requirement of security. Therefore, during the construction process, we must consider the security need in the whole areas and factors. Furthermore, to the choice of pattern we must pay more attention to uncontrollable external factors which may cause the risk during the construction, and we should also take full account of the demands of the risk prevention and elimination.

3　The Major Types of the Model of Military Informationization Construction of Logistic Management

According to the different construction ideas and the classification criteria, we could divide our military informationization construction of logistic management into different types. In this paper, we mainly discuss the different patterns in two different division ways (see **Figure** 1).
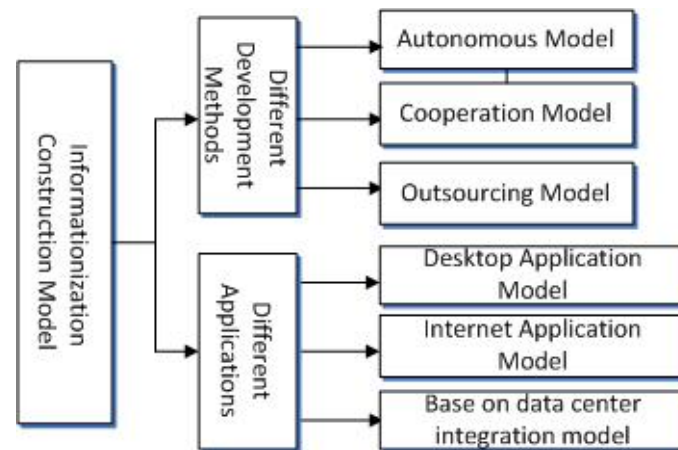

Figure 1　The Model of the Military Informationization Construction of Logistic Management

3.1 Division base on the different development methods

According to the different development methods, the informationization construction of logistic management includes autonomous model, cooperation model and outsourcing model.

(1)　Autonomous model

Autonomous model generally refers to the logistic of military which mainly reliance on their internal strength to develop information management system and achieve the target of managing the informationization construction.

(2)　Cooperation model

Cooperation model generally refers to the logistic of military and external technical forces, it includes application service provider, computer hardware and software company and consultant firm. We try to make them cooperate in order to conduct the model for the informationization construction of logistic management. This model will be helpful for combining the logistic informationization and structural innovation with external resources in order to solve some problems which organization installation is unreasonable and the working flow cause inefficiency in the logistics management. Meanwhile, it could bring us some advanced management concepts and thoughts and promote the overall level of logistic management.

(3) Outsourcing model

Outsourcing model is a subcontracting process of business activities or project activities, that's means an organization outsourced those non-core business which is traditionally responsible by the interior specialist to the professional, efficient service provider under agreement of deed, hoping to keep a smaller scale and a higher agility, to overcome those weakness which are easy to be attacked caused by the economies of scale. For the informationization construction of logistic management, outsourcing pattern refers to employ external professional service provider, it provides information system or information technology service which could be regarded as a practice and a kind of management measures for the informationization construction of logistic management, it also can be extended as a behavior by using external organization or individual to develop internal information system.

3.2 Division base on the different applications

According to the different implementation measures of system function, the informationization construction of logistic management includes three patterns: desktop application, internet application and "base on data center" model.

(1) Desktop application model

This model mainly in operating independently, the function is very single, and can't share the information to others. These kinds of application model make such a small contribution to the whole company's informationization of efficiency, owing to divide and develop according to the department functions. But it has a better military economic benefit in reducing the management working intensity and improving accuracy and efficiency of the logistic work.

(2) Internet application model

With the development of application level in logistic activities, logistic management have a corresponding demand for the open and integrated internet model, people attach more importance to share the information, to work together, and to optimize the business processes. Open system include the openness of the hardware of computer, software development environment, and the structural of management system. To a certain extent, the open system eliminate the difference of exchanging information types which make military logistic as a whole with a closer communication. Integration not only displays the integration of information technology, but also displays the combination of new management thoughts, management measures and technologies. Adoption of openness integration internet application model, it could make logistic management activities into a closely connected value chain, and could put all aspects of value chain into balance by wide area network. Therefore, this model could realize military logistic integration operation in flow of people, capital, supplies, work and information.

(3) Base on data center integration model

The concept of "integration" is transcribed from the "integration", its mean is "the act of combining into an integral whole". Twenty-first century, after the seventies, the concept of "integration" has gradually clear and standard," integration usually means a whole is made up of the parts, it may change the well-separated events into a closer integration" [3] ,said Karl W. Deutsch, an American international expert. Recently, our country experts believe that "integration" is a process of constant development from diversification to integration, from segregation to synthesis, its meaning is all the thing has gradually shifted from the status of loose, hierarchical, drift to the status of close-knit, integral and comprehensive[4].

The concept of "data center" which evolution has generally experienced five stages, these five stages are integration, amalgamation, virtualization, SOA (Service Oriented Architecture) and automation. These stages are not only the ideal evolution of data center technology, but also the direction of future technology development. The first stage is integration. At present, the application of data center technology is very commonly, the method is to put more resources on a single system to save money. In the past, every department have their own web server, however, with the explosion of information scale in computer system, when it comes to an even larger number of users, the maintenance cost of the data center will become extremely high. The way to reduce costs is to integrate the server. It can integrates either the servers of every department or all data centers of the same district, and then by using data center to carry on hosting. Nowadays, all the applications of data center are no exception to be used in the same way at home and abroad. The second stage is amalgamation. That's means integrating all kinds of applications into a single system. It includes VoIP (IP communication play a key role in running on an internal network), ERP, CRM or Email and so on. Only by integrating can amalgamation could be realized. The third stage is virtualization. At anytime and anywhere, the

virtualization of data center will have the information arrived without delay. The fourth stages is SOA (Service Oriented Architecture), which includes two aspects: one will backup for data center with one or two sets of resources, with no data loss, so SOA have a high availability, the other settle the loosely coupled among the systems by using commercial modeling techniques of Service-Oriented, thus it can make the system with integration and synergies. The fifth stage is the automatic operation of data center, this is our vision. From virtualization to SOA, then to automation, it makes the different companies with hardware and software to come to an agreement, it's a challenging work we should do (See Figure 2).
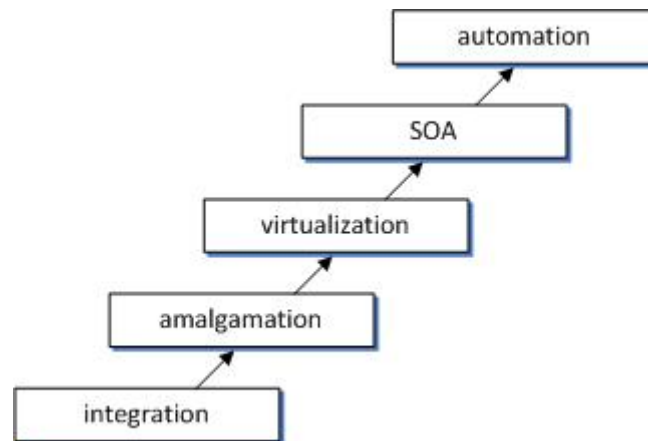

Figure 2   The Evolution of the Integrative Mode Based on the Data Center

4   The Integration Mode Based on the Data Center--the Science of Choice for our Military Informationization Construction of Logistic Management

"The integration mode base on the data center" was introduced to our military informationization construction of logistic management, it's an effectively way to break the bottleneck and speed up the science of choice for the comprehensive development of a modem logistics system."The integration mode base on the data center" is the development of thought as well as the means of development. With the guide of the integration ways of thinking, it takes to sharp the core power of logistic management as center in conditions of informationization, takes the requirement of military modernize construction and informationization as distraction, takes informatization construction as foundation, takes the development strategy of logistic as guide, by using the Meta-synthesis to realize the internal coordination of informationization construction of logistic management system and the adaptation process of interaction of external environment, to achieve the construction mode of development goals' integration. Meanwhile, it integrates and regulates with the information technology and military working flow of logistic, control and optimizes all aspects of effective construction resources, in order to create a new pattern for the military informationization construction of logistic management with a core of optimization, integration and amalgamation. It could be the innovative crystallization and a good combination of advanced management thought, management model, management method and information technology, which stands for the future direction of the military informationization construction of logistic management.

5   Conclusion

Through construction of a few years and development, our military informationization construction of logistic management, the informationization of logistic management of all the military services with self-construction and self-government in the postwar has already made much progress. The paper propose the integration mode based on the data center, and provide a theoretical model for the military informationization construction of logistic management. It's an effectively way to break the bottleneck and speed up the science of choice for the comprehensive development of a modem logistics system.

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