

Research on network resources management system

ZHAO Yan-mei¹, TAO Yang¹, XU Liang²

1: Software technology center, Chongqing University of Posts & Telecommunications
Mailbox 78#, Chongqing University of Posts & Telecommunications, Huangjueya town,
NanAn District, Chongqing 400065, P.R.China
Zhyanmei2006@yahoo.com

2: School of Economics & Management, Beijing University of Posts & Telecommunications,
Beijing 100876, P.R.China

Abstract: The network resources management system has been an important tool for telecom operators to enhance the inner management. In this paper, the general concept and current study on the network resources management are introduced, it's put forward that the multi-NRMSs should be integrated, and some functions of this integrated one are discussed. And the economic attribute of NRMS is put forward, the NRMS of network with limited resources is also discussed which should maximize the system utility, to provide suggestions for future construction of NRMS.

Keywords: Network resources management system; Information system; Business process reengineering; Techno-economic; Utility optimization; Congestion pricing

1. INTRODUCTION

With the competition in telecom market being more intense, the original way that the increase of income came from the promotion of large amounts of investment can no longer meet the requirement of the competition and the capital market. The telecom operators should develop the potential of the existing resources to provide the services with lower cost. This can be done by several ways, one of them is that the operators should build NRMS (abbreviation for Network Resources Management System) to realize the centralized management and united preparation of network resources, so as to get the best synthesized efficiency of the network by improving the utilization of capacity of the network resources and activating the resting resources. In this paper, the construction of NRMS and the problems in this process will be discussed.

2. THE NETWORK RESOURCES MANAGEMENT SYSTEM

2.1. What are included in the network resources?

Generally speaking, the telecom network resources include pipeline and line network resources, cable network resources, fiber network resources, equipment rooms, core transmission network resources, access network resources, public switch network resources,

