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CCITT

THE INTERNATIONAL
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CONSULTATIVE COMMITTEE

M.21

(10/92)

MAINTENANCE: INTRODUCTION AND GENERAL PRINCIPLES OF MAINTENANCE AND MAINTENANCE ORGANIZATION

MAINTENANCE PHILOSOPHY FOR TELECOMMUNICATION SERVICES



Recommendation M.21

FOREWORD

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Recommendation M.21 was revised by Study Group IV and was approved under the Resolution No. 2 procedure on the 5th of October 1992.

CCITT NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized private operating agency.

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MAINTENANCE PHILOSOPHY FOR TELECOMMUNICATION SERVICES

(Melbourne 1988, revised 1992)

Abstract

This Recommendation describes the maintenance philosophy for telecommunication services. It also defines service maintenance phases, service supervision capabilities, and bringing into service requirements.

Keywords

- service;
- maintenance;
- quality of service.

1 General

Service maintenance is the combination of all technical and corresponding administrative actions, including supervision actions, intended to retain a service in, or restore it to a state in which it can ensure meeting the applicable Quality Of Service (QOS) requirements. In order to properly plan and develop the maintenance operations required to establish and maintain a telecommunication service, the following general strategy is recommended.

1.1 Service maintenance objectives

1.1.1 Purpose

Service maintenance objectives are to ensure that any deviations from defined Quality Of Service (QOS) factors and performance objectives will be corrected in timely fashion and to customer satisfaction. A concept of QOS is defined in Recommendation E.800 [1] as “the collective effect of service performances which determine the degree of satisfaction of a user of the service”. QOS comprises a number of factors or performances which are enumerated and defined in Recommendation E.800 [1]. For this purpose Administrations may designate units within the existing maintenance organization or may establish new service maintenance organization units responsible for all aspects of service maintenance.

1.1.2 Introduction of new services

When a new service is to be introduced, early consideration should be given to its operational and maintenance requirements. In practice, these will depend on its Quality Of Service objectives, and therefore, on performance parameters and objectives which are set for each item which is used for operating the service (e.g. equipment, network, etc.). Thus each item should be considered individually. If such an item is unique to a service, there will be new operational and maintenance requirements. If such an item is not unique to a service and it is already used in providing an existing service, consideration should be given to whether the existing operational and maintenance requirements need to be changed. This will depend on whether the performance parameter objectives are changed.

1.1.3 Interactive and coordinated maintenance activities

Considerable benefits may be obtained by close cooperation between the network maintenance organization and service maintenance organization units. In the provision and maintenance of a service consideration should also be given whether subject areas require inter-Administration agreements or the development of specific Recommendations. In such a case, operational and maintenance responsibilities should be negotiated and established among all involved service providers prior to the introduction of such a service. Technical service, as defined in Recommendation M.75 [4], may need to be involved in making the appropriate agreements. Service maintenance contact points should be exchanged as part of the general exchange of contact point information as specified in Recommendation M.1510 [5].



Documents

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