INTERNATIONAL TELECOMMUNICATION UNION

ITU-T Series E.800

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Supplement 7
(11/1988)

SERIES E: OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

Telephone network management and traffic engineering

Guide for evaluating and implementing alternate routing networks

ITU-T E.800-series Recommendations – Supplement 7

(Formerly CCITT Recommendations)

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Supplement 7 to ITU-T E.800-series Recommendations

Guide for evaluating and implementing alternate routing networks

Summary

This guide describes a systematic procedure in several steps used for the evaluation of alternate routing networks.

Source

Supplement 7 was approved in Melbourne (1988) and originally published in Blue Book, Fascicle II.3.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSC Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

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

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Supplement 7 to ITU-T E.800-series Recommendations

Guide for evaluating and implementing alternate routing networks

A systematic procedure consisting of a number of distinct steps is used for the evaluation of alternate routing networks.

These steps are given in the flowchart of Annex A and are provided as guidance. Administrations may wish to expand, delete or change the order of these steps to meet circumstances.

The steps may be grouped into the following six processes:

- Identification of alternate route.
- Preliminary screening.
- Data gathering.
- Evaluation.
- Implementation.
- Monitoring.

1 Identification of alternate route

A terminal Administration selects an alternate route.

A tentative agreement is reached with the opposite terminal Administration to use the selected alternate route, and both terminal Administrations reach tentative agreement with the transit Administration to explore the use of its network as an alternate route.

If no tentative agreements are reached, another alternate route is selected or if none is available, the procedure is abandoned.

2 Preliminary screening

Using available data, the organizational elements of the terminal Administrations responsible for transmission, routing and call completion, analyse the feasibility of utilizing the alternate route.

If an objection is raised, another alternate route is selected or, if none is available, the procedure is abandoned.

3 Data gathering

A questionnaire is issued to all Administrations involved to obtain additional information before an evaluation is made of the proposed alternate route.

The questionnaire can include requests for transmission, routing, call completion rates, traffic profiles, circuit costs, and transit charges.

If there is no response to the questionnaire or if the information provided indicates that the alternate route is unsuitable, another alternate route is selected or, if none is available, the procedure is abandoned.

4 Evaluation

The alternate routing network is dimensioned according to Recommendation E.522.

If additional circuits are required on the alternate route, and the required increment exceeds the available capacity, another alternate route is selected. If no other alternate route is available Administrations may choose to retain the selected alternate route and accept a cost disadvantage.

5 Implementation

Final negotiations are carried out and approval of all Administrations involved in the alternate route network is sought.

The negotiations would include the reporting procedure and responsibility for recording traffic overflowing to the alternate route.

If final agreement cannot be reached, another alternate route is selected or, if none is available, the procedure is abandoned.

6 Monitoring

Traffic volumes and performance data for the alternate route are recorded and exchanged at regular intervals.

ANNEX A

(to Supplement No. 7)

Flowchart of evaluation and implementation procedure for alternate routing networks

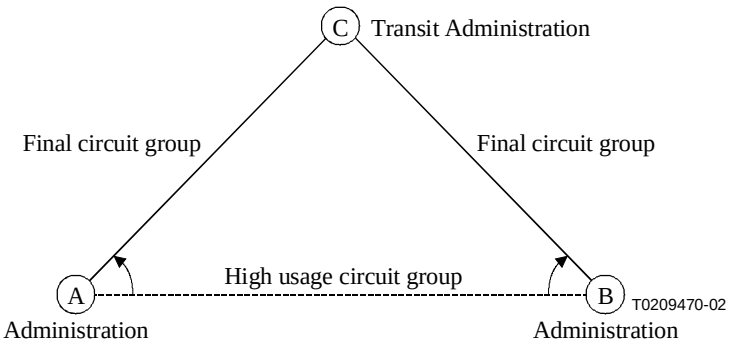
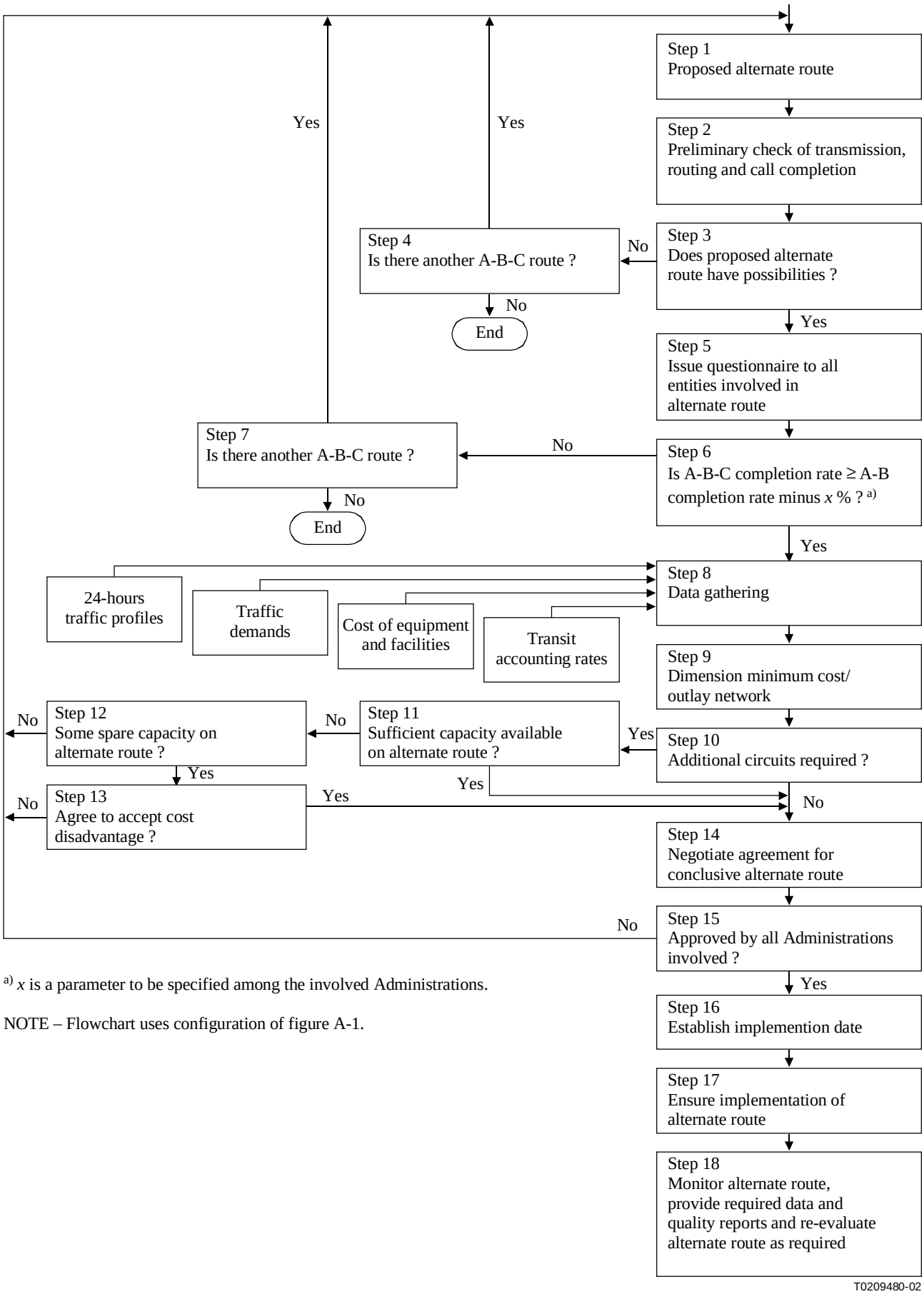


FIGURE A-1

Alternate routing network



a) *x* is a parameter to be specified among the involved Administrations.

NOTE – Flowchart uses configuration of figure A-1.

FIGURE A-2

Flowchart for evaluating and implementing alternate routing networks

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Printed in Switzerland
Geneva, 2002