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# CCITT

THE INTERNATIONAL  
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CONSULTATIVE COMMITTEE

## M.3602

(10/92)

### MAINTENANCE: ISDN

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## APPLICATION OF MAINTENANCE PRINCIPLES TO ISDN SUBSCRIBER INSTALLATIONS



### Recommendation M.3602

## FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

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Recommendation M.3602 was revised by Study Group IV and was approved under the Resolution No. 2 procedure on the 5th of October 1992.

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## 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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**Recommendation M.3602****APPLICATION OF MAINTENANCE PRINCIPLES TO ISDN  
SUBSCRIBER INSTALLATIONS***(Melbourne 1988 as Rec. I.602; revised and renumbered in 1992)**Abstract*

This Recommendation defines physical layer maintenance functions used to maintain ISDN subscriber installations.

*Keywords*

- ISDN;
- maintenance;
- subscriber installation.

**1 Scope of application**

This Recommendation presents the possible elementary functions for the maintenance of the subscriber installation. The functions are to be considered as optional, except when needed to meet specific network interface requirements found in Recommendations I.430 [3] and I.431 [4].

These functions can be controlled by the local side, (e.g. from the subscriber premises) and by a remote side (i.e. from a Management Service Provider<sup>1)</sup> (MSP) as described in Recommendation M.3600 [1]].

It is the responsibility of the subscriber installation to ensure that only authorized MSPs are given access to the functions covered by this Recommendation.

**2 Network configuration for maintenance activities**

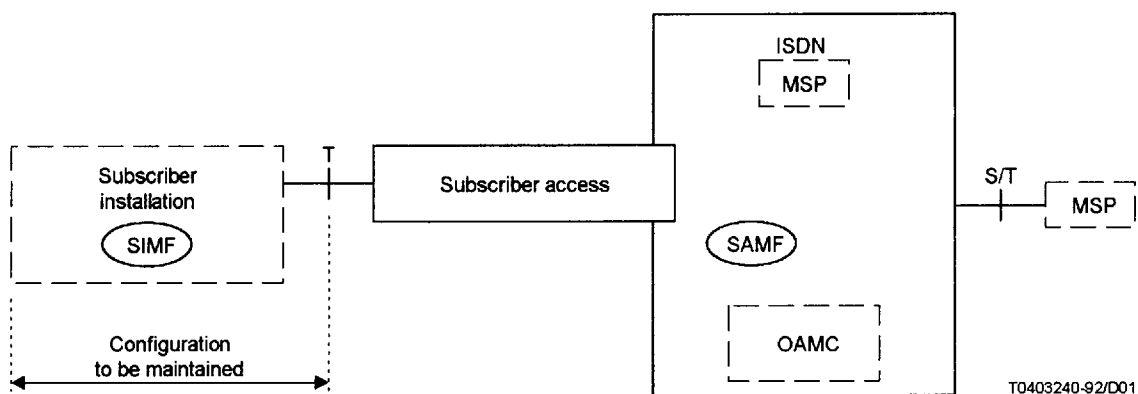
Figure 1/M.3602 is the basis for the general maintenance principles of the ISDN subscriber installation.

There are several subscriber configurations using primary rate shown in Figure 2/M.3602 that can appear behind any of the NT1s shown in Figure 2/M.3604 [6]. The first is the simplest case of separate NT1 and NT2 followed by a primary rate TE. Another case is with the NT1 and NT2 combined into one unit. A third case is an NT2 that is a PABX with several basic rate TEs behind it. A final case is one in which the NT2 is a multiplexer with several basic rate TEs behind it.

**3 Automatic supervision****3.1 Continuous automatic supervision on layer 1****3.1.1 General**

This supervision may be realized by permanent automatic mechanisms located in the pieces of equipment of the subscriber installation (see definition in Figure 1/M.3602). These automatic mechanisms are operational during the active period of the subscriber basis access. They are designed to detect malfunctioning of particular items, e.g. power supply, quality level of transmission, incoming signal, frame alignment.

<sup>1)</sup> This Recommendation deals only with the maintenance aspects of management.



MSP Management Service Provider  
 OAMC Operation Administration Maintenance Centre  
 SAMF Subscriber Access Management Function  
 SIMF Subscriber Installation Management Function

See Recommendation M.3600 [1] for a detailed discussion of these terms.

*Note* – In some countries, certain maintenance functions within the subscriber access are controlled by the subscriber installation (SIMF).

FIGURE 1/M.3602  
 Configuration for the maintenance of the subscriber installation

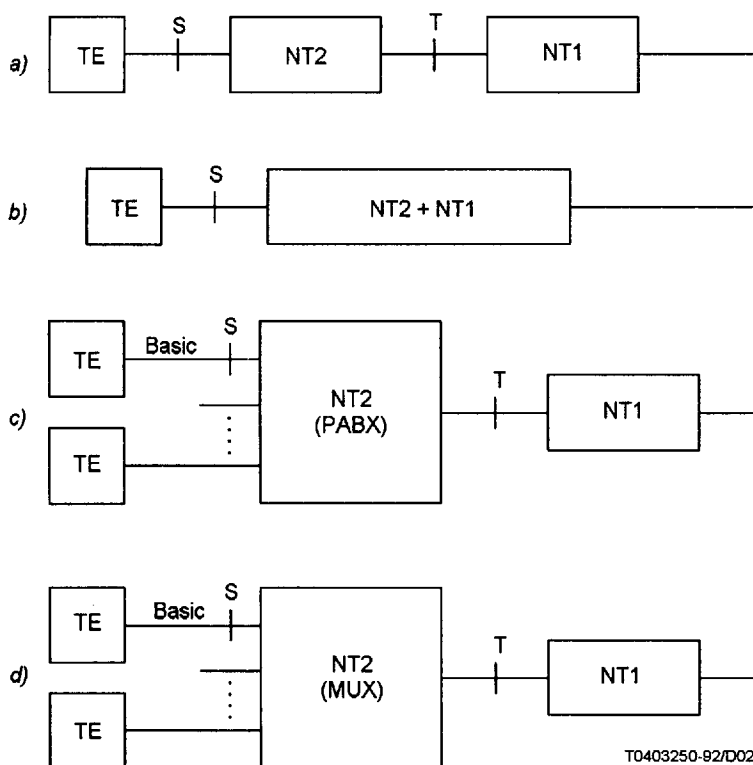


FIGURE 2/M.3602  
 Primary rate subscriber configuration examples