

Implementation of ENV 41110 : 1992

Information technology — Functional standard for profile T/A53 — Local Area Network — Token Ring (COTS + CLNS)

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Technologie de l'information — Norme
fonctionnelle pour le profil T/A53 — Réseau
local — Anneau à jeton (COTS + CNLS)

Informationstechnik — Funktionelle Norm
für Profil T/A53 — Lokales Netz —
Token-Ring (COTS + CLNS)

UDC 681.3.01/.02

National foreword

This Draft for Development is identical with the European Prestandard ENV 41110 : 1992 *Information technology — Functional standard for profile T/A53 — Local Area Network — Token Ring (COTS + CLNS)*, prepared by CEN/CENELEC whose members have committed themselves to making it available in an appropriate form. In the UK the Draft for Development is the form now chosen for ENVs in the information technology area.

This Draft for Development is published under the direction of the Information Systems Technology Standards Policy Committee whose Technical Committee IST/6 has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on interpretation, or proposals for change, and to keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

NOTE. International and European Standards, as well as overseas standards, are available from BSI Sales Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.

After two years this ENV will be reviewed by CEN/CENELEC members with a view to its:

- conversion into a European Standard (which would be implemented in the UK as a British Standard);
- extension once for a further two years;
- replacement by a revised ENV (which would be published in the UK as a revised Draft for Development);
- withdrawal.

The future of this Draft for Development is therefore bound to that of the ENV and the Draft for Development will not be reviewed or developed separately.

This publication is not to be regarded as a British Standard.

Descriptors: Data processing, information interchange, open system interconnection, local area networks, data transmission, connection oriented transmission, connectionless mode transmission, services, transport layer, network layer, data link layer, physical layer

English version

Information technology — Functional standard for profile T/A53 — Local Area Network — Token Ring (COTS + CLNS)

Technologie de l'information — Norme
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(COTS + CLNS)

This European Prestandard (ENV) was approved by CEN/CENELEC on 1991-09-26 as a prospective standard for provisional application. The period of validity of this ENV is limited initially to three years. After two years the members of CEN/CENELEC will be requested to submit their comments, particularly on the question whether the ENV can be converted into a European Standard (EN).

CEN/CENELEC members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

CEN/CENELEC members are the national standards bodies and national electrotechnical committees, respectively, of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN/CENELEC

The Joint European Standards Institution
Organisation Commune Européenne de Normalisation
Die Gemeinsame Europäische Normungsorganisation

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Prestandard (ENV) was elaborated by the EWOS Expert Group Lower Layer (EWOS/EG LL).

It was submitted for formal vote by the CEN Central Secretariat to the members of CEN/CENELEC on 1991-06-26 with the deadline of 1991-09-26. The result of the formal vote was positive.

This ENV is the revised version of ENV 41110 : 1988 following the result of the Two-Year Enquiry of 1991-02-06.

ENV 41110 : 1992 supersedes ENV 41110 : 1988 which is to be withdrawn.

According to the CEN/CENELEC Common Rules, the following countries are bound to announce the existence of this European Prestandard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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Introduction

This Functional Standard is defined in accordance with the principles specified by ISO/IEC Technical Report 10000.

The context of Functional Standardization is one area in the overall field of Information Technology (IT) standardization activities, covering base standards, profiles, and registration mechanisms. A profile defines a combination of base standards that collectively perform a specific well-defined IT function. Profiles standardize the use of options and other variations in the base standards, and provide a basis for the development of uniform, internationally recognized system tests.

One of the most important roles for a Functional Standard is to serve as the basis for the development (by organizations other than ISO and IEC) of internationally recognized tests and test centers. Functional Standards are produced not simply to 'legitimize' a particular choice of base standards and options, but to promote real system interoperability. The development and widespread acceptance of tests based on this and other Functional Standards is crucial to the successful realization of this goal.

This Functional Standard consists of several parts. This part defines Profile T/A53.

Other parts specify the subnetwork-type independent requirements (i.e. Transport Layer requirements), the LAN independent requirements for the Network Layer and the LLC Sublayer, the LAN specific requirements for Token Ring, and relay function requirements. This part references and, where necessary, amends other parts that collectively constitute the T/A53 profile.

1 Scope

1.1 General

This Functional Standard is applicable to End Systems concerned with operating in the Open Systems Interconnection (OSI) environment. It specifies a combination of OSI standards, which collectively provide the connection-mode Transport Service using the connectionless-mode Network Service.

This Functional Standard part is applicable to the provision of the connection-mode Transport Service in end systems attached to a Token Ring LAN subnetwork from which the standardized connectionless-mode Network Service can be made available.

1.2 Position in the Taxonomy

The taxonomy of profiles is defined in M-IT-02, issue 5. This part of this Functional Standard defines the profile:

T/A53	Connection-mode Transport Service over Connectionless-mode Network Service over Token Ring LANs
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This corresponds to profile TA53 in ISO/IEC TR 10000-2.

1.3 Scenario

Figure 1 illustrates the End System configurations to which the T/A53 profile is applicable.

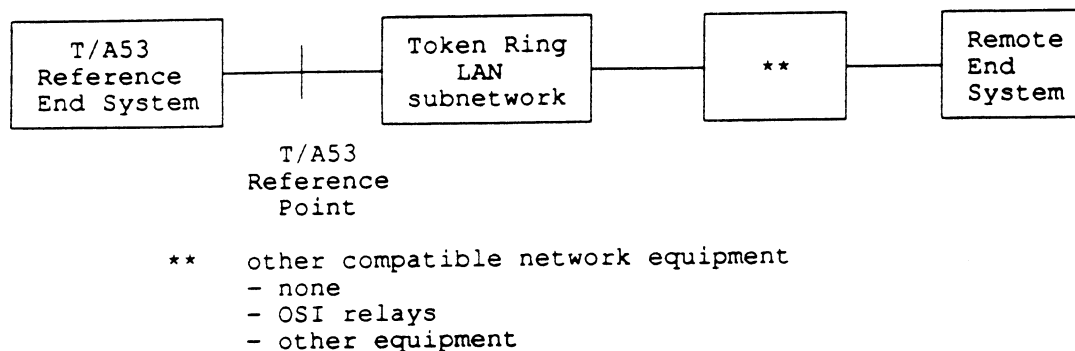


Figure 1 - Scenario of applicability of the T/A53 profile

This part of this Functional Standard specifies the required functions from the supporting protocol stack shown in table 1.

Table 1. T/A53 protocol stack for end system

Transport Layer	ISO/IEC 8073
Network Layer	ISO 8473, ISO 9542
Data Link Layer	ISO 8802-2, ISO/IEC 8802-5
Physical Layer	ISO/IEC 8802-5

2 Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this Functional Standard. At the time of publication, the editions indicated were valid. All documents are subject to revision, and parties to agreements based on this Functional Standard are warned against automatically applying any more recent editions of the documents listed below, since the nature of references made by Functional Standards to such documents, is that they may be specific to a particular edition. Members of IEC and ISO maintain registers of currently valid International Standards and International Standardized Profiles (ISPs), and CCITT maintains published editions of its current Recommendations.

- a. ISO/IEC TR 9577:1990, Information technology - Telecommunications and information exchange between systems - Protocol identification in the network layer
- b. ISO/IEC TR 10000-1:1990, Information technology - Framework and taxonomy of International Standardized Profiles - Part 1: Framework
- c. ISO/IEC TR 10000-2:1990, Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Taxonomy of Profiles
- d. ISO/IEC ISP 10608-1:1992, Information technology - International Standardized Profile TAnnnn -