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Transmission and Multiplexing (TM); Generic requirements of transport functionality of
equipment; Part 4-2: Synchronous Digital Hierarchy (SDH) path layer functions;
Implementation Conformance Statement (ICS) proforma specification

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**Transmission and Multiplexing (TM);
Generic requirements of transport functionality of equipment;
Part 4-2: Synchronous Digital Hierarchy (SDH)
path layer functions;
Implementation Conformance Statement (ICS)
proforma specification**

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Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Transmission and Multiplexing (TM).

The present document is one of a family of documents that has been produced in order to provide inter-vendor and inter-operator compatibility of Synchronous Digital Hierarchy (SDH) equipment.

The present document is part 4-2 of a multi-part EN covering the generic requirements of transport functionality of equipment, as identified below:

- Part 1-1: "Generic processes and performance".
- Part 1-2: "General information about Implementation Conformance Statement (ICS) proforma".
- Part 2-1: "Synchronous Digital Hierarchy (SDH) and Plesiochronous Digital Hierarchy (PDH) physical section layer functions".
- Part 2-2: "Synchronous Digital Hierarchy (SDH) and Plesiochronous Digital Hierarchy (PDH) physical section layer functions; Implementation Conformance Statement (ICS) proforma specification".
- Part 3-1: "Synchronous Transport Module-N (STM-N) regenerator and multiplex section layer functions".
- Part 3-2: "Synchronous Transport Module-N (STM-N) regenerator and multiplex section layer functions; Implementation Conformance Statement (ICS) proforma specification".
- Part 4-1: "Synchronous Digital Hierarchy (SDH) path layer functions".
- Part 4-2: "Synchronous Digital Hierarchy (SDH) path layer functions; Implementation Conformance Statement (ICS) proforma specification".**
- Part 5-1: "Plesiochronous Digital Hierarchy (PDH) path layer functions".
- Part 5-2: "Plesiochronous Digital Hierarchy (PDH) path layer functions; Implementation Conformance Statement (ICS) proforma specification".
- Part 6-1: "Synchronization layer functions".
- Part 6-2: "Synchronization layer functions; Implementation Conformance Statement (ICS) proforma specification".
- Part 7-1: "Auxiliary layer functions".
- Part 7-2: "Auxiliary layer functions; Implementation Conformance Statement (ICS) proforma specification".

Parts 2 to 7 specify the layers and their atomic functions.

NOTE 1: The present document does not currently address configuration management.

NOTE 2: The SDH radio equipment functional blocks are addressed by ETSI WG TM4.

Various of the above parts have previously been published as parts of ETS 300 417.

They have been converted into parts of EN 300 417 without technical changes, but some editorial changes have been necessary (e.g. references). In particular:

- Parts 2-1, 2-2 and 3-2 have been modified to take account of editorial errors present in edition 1.
- Part 1-1 has had its title change of to align with other parts published at a later date.

Also note that in the meantime parts 8-1 and 8-2 together with all parts x-3 (Abstract Test Suites) have been stopped.

National transposition dates	
Date of adoption of this EN:	7 May 1999
Date of latest announcement of this EN (doa):	31 August 1999
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	29 February 2000
Date of withdrawal of any conflicting National Standard (dow):	29 February 2000

Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called an Implementation Conformance Statement (ICS).

A client of a test laboratory who requests a conformance/approval test shall provide to the test laboratory a completed ICS proforma for each layer to be tested and a detailed system description of the implementation.

The ICS proforma is not another complete description of the related specification, but rather a compact form of its static conformance requirements, to be used by the test laboratory to identify which test shall be performed on a given implementation. Not every feature of a profile specification is contained in the related ICS proforma. For particular cases requiring specific information the ICS can refer to the appropriate clause of the related specification by means of references, notes and or comments.

The ICS proforma captures the implementation flexibility allowed by the related specification and details which option are left to the implementor, which are conditionally dependent on other option taken by the implementor.

1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for the Synchronous Digital Hierarchy (SDH) path layer functions defined in EN 300 417-4-1 [8] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [13] and ETS 300 406 [5].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
 - For a specific reference, subsequent revisions do not apply.
 - For a non-specific reference, the latest version applies.
 - A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.
- [1] ETS 300 147 (1997): "Transmission and Multiplexing (TM); Synchronous Digital Hierarchy (SDH); Multiplexing structure".
 - [2] ETS 300 166: "Transmission and Multiplexing (TM); Physical and electrical characteristics of hierarchical digital interfaces for equipment using the 2 048 kbit/s - based plesiochronous or synchronous digital hierarchies".
 - [3] ETS 300 167: "Transmission and Multiplexing (TM); Functional characteristics of 2 048 kbit/s interfaces".
 - [4] ETS 300 216: "Network Aspects (NA); Metropolitan Area Network (MAN); Physical layer convergence procedure for 155,520 Mbit/s".
 - [5] ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
 - [6] EN 300 417-1-1: "Transmission and Multiplexing (TM); Generic functional requirements for Synchronous Digital Hierarchy (SDH) equipment; Part 1-1: Generic processes and performance".
 - [7] EN 300 417-3-1: "Transmission and Multiplexing (TM); Generic requirement of transport functionality of equipment; Part 3-1: Synchronous Transport Module-N (STM-N) regenerator and multiplex section layer functions".
 - [8] EN 300 417-4-1: "Transmission and Multiplexing (TM); Generic requirement of transport functionality of equipment; Part 4-1: Synchronous Digital Hierarchy (SDH) path layer functions".
 - [9] EN 300 417-6-1: "Transmission and Multiplexing (TM); Generic requirement of transport functionality of equipment; Part 6-1: Synchronization layer functions".
 - [10] ETS 300 746 (1997): "Transmission and Multiplexing (TM); Synchronous Digital Hierarchy (SDH); Network protection schemes; Automatic Protection Switch (APS) protocols and operation".
 - [11] ISO/IEC 8802-6: "Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 6: Distributed Queue Dual Bus (DQDB) access method and physical layer specifications".
 - [12] ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".