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Part 372: Fibre channel methodologies for interconnects-2 (FC-MI-2)**

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INFORMATION TECHNOLOGY – FIBRE CHANNEL –

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FOREWORD

- 1) ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards. Their preparation is entrusted to technical committees; any ISO and IEC member body interested in the subject dealt with may participate in this preparatory work. International governmental and non-governmental organizations liaising with ISO and IEC also participate in this preparation.
- 2) In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.
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ISO/IEC 14165-372, which is a technical report, has been prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 14165 series, under the general title *Information technology – Fibre Channel*, can be found on the IEC web site.

This Technical Report has been approved by vote of the member bodies and the voting results may be obtained from the address given on the second title page.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

INTRODUCTION

This technical report specifies common methodologies for both Arbitrated Loop and Switched environments. The goal of this technical report is to facilitate interoperability between devices whether they are connected in a loop or Fabric topology.

INFORMATION TECHNOLOGY – FIBRE CHANNEL –

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1 Scope

This part of ISO/IEC 14165 is intended to document interoperability behavior for Fabric elements (i.e., E_Port, F_Port, FL_Port). This Technical Report includes a wide range of issues such as link initialization, error detection, error recovery, Fabric operation, management capabilities, and zoning.

This Technical Report serves as an implementation guide, whose primary objective is to maximize the likelihood of interoperability between conforming implementations. This Technical Report prohibits or requires some features that are in the referenced documents.

A second objective of this Technical Report is to simplify implementations and their associated documentation, testing, and support requirements. As a result there may be some optional features of the referenced documents that are not mutually exclusive, but are prohibited or required for the purpose of this simplification. Features that some but not all of the referenced documents require for compliance may be optional in this report. Each specification of such an optional feature in this report identifies the referenced document for which the feature is required.

Internal characteristics of conformant implementations are not defined by this Technical Report, but it incorporates features from the documents cited in clause 2.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the of the referenced document (including any amendments) applies.

The provision of the referenced specification other than ISO/IEC, IEC, ISO and ITU documents, as identified in this clause, are valid within the context of this Technical Report. The reference of such a specification within this Technical Report does not give it any further status within ISO/IEC. In particular, it does not give the referenced specification the status of an International Standard.

ISO/IEC 14165-115, *Information technology – Fibre channel – Part 115: Physical Interfaces (FC-PI)*²

ISO/IEC 14165-122, *Information technology – Fibre Channel – Part 122: Arbitrated loop-2 (FC-AL-2)*³

ISO/IEC 14165-133, *Information technology – Fibre channel – Part 133: Fibre Channel Switch Fabric-3 (FC-SW-3)*⁴

T11/Project 1620D, *Fibre Channel - Link Services (FC-LS)*⁵

INCITS TR-36-2003, *Fibre Channel - Device Attach (FC-DA)*⁶

2. ANSI INCITS 352-2002, *Fibre Channel - Physical Interfaces (FC-PI)*

3. ANSI INCITS 332-1999, *Fibre Channel - Arbitrated Loop (FC-AL-2)*

4. ANSI INCITS 384-2004, *Fibre Channel - Switch Fabric - 3 (FC-SW-3)*

5. ISO/IEC 14165-261, *Information technology – Fibre Channel – Part 261: Link services (FC-LS)*
(under consideration)

6. ISO/IEC 14165-341, *Information technology – Fibre Channel – Part 341: Device attach (FC-DA)*
(under consideration)

- ISO/IEC 14165-414, Information technology – Fibre Channel – Part 414: Generic services-4 (FC-GS-4) ⁷
- ISO/IEC 14165-431, *Information technology – Fibre Channel – Part 431: Security Protocols (FC-SP)* (to be published) ⁸
- Internet Engineering Task Force RFC 791, Internet Protocol, September 1981
- Internet Engineering Task Force RFC 2373, IP Version 6 Addressing Architecture, July 1998
- Internet Engineering Task Force RFC 2460, Internet Protocol, Version 6 (IPv6) Specification, December 1998
- Internet Engineering Task Force RFC 3410, Introduction and Applicability Statements for Internet Standard Management Framework, December 2002
- Internet Engineering Task Force RFC 4044, Fibre Channel Management MIB, May 2005

7. ANSI INCITS 387-2004, *Fibre Channel - Generic Services - 4 (FC-GS-4)*

8. T11/Project 1570D, *Fibre Channel - Security Protocols (FC-SP)*