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First edition
2007-05

Information technology –
Fibre channel –

Part 414:
Generic services-4 (FC-GS-4)



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INFORMATION TECHNOLOGY – FIBRE CHANNEL –

Part 414: Generic services-4 (FC-GS-4)

FOREWORD

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International Standard ISO/IEC 14165-414 was 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.

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This International Standard 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.

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INTRODUCTION

FC-GS-4 is one of the Fibre Channel family of standards. This family includes FC-FS, which specifies the Framing and Signalling Interface. FC-SW-2 is related to Fabric requirements. FC-AL-2 specifies the arbitrated loop topology.

FC-GS-4 describes in detail the basic Fibre Channel services introduced in FC-FS. In addition, this document describes any ancillary functions and services required to support the Fibre Channel services. Services described include name services, management services, discovery services, time services and alias services.

FC-GS-4 provides generic services that may be utilized by any upper layer protocol that makes use of Fibre Channel as a transport.

Figure 0 shows the relationship of this FC-GS-4 standard (highlighted in red) with other Fibre Channel standards and draft proposed standards.

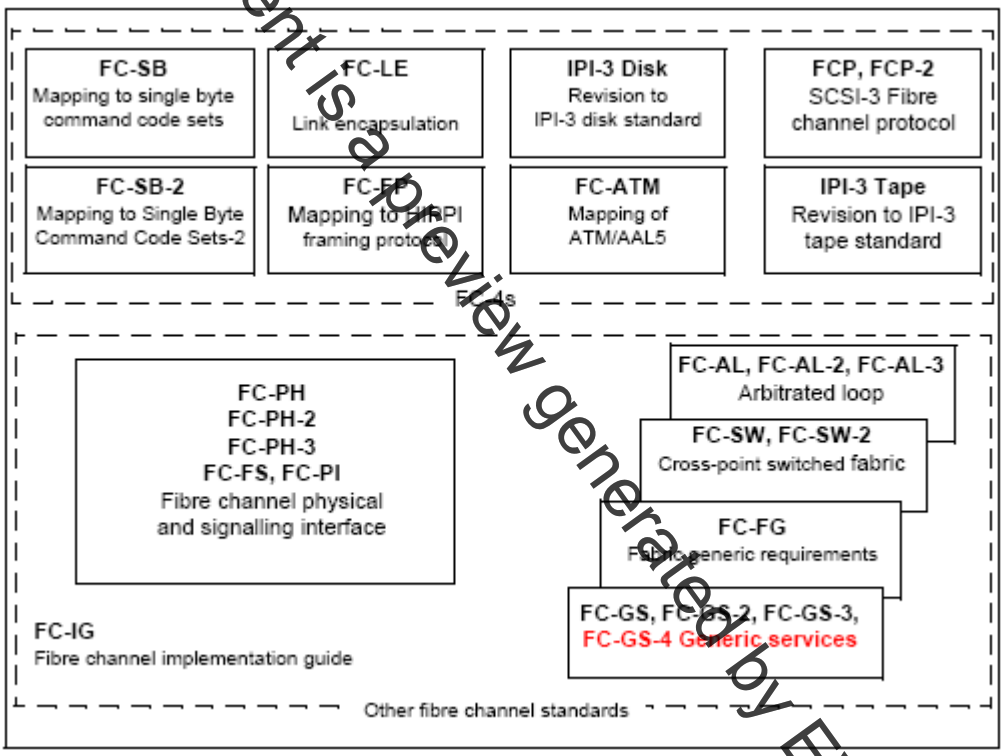


Figure 0 – Document relationship

The information presented in this document is grouped into clauses:

– Clause 1, Scope

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– Clause 2, Normative references

– Clause 3, Definitions and conventions

– Clause 4, Common transport for generic services

– Clause 5, Directory service

– Clause 6, Management service

– Clause 7, Alias service

– Clause 8, Key distribution service

– Annex A, Service interface provided by FC-CT

– Annex B, FC-4 Feature bits

– Annex C, Discovery

– Annex D, Example of zone services

– Annex E, Time service

– Annex F, Performance server

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INFORMATION TECHNOLOGY –
FIBRE CHANNEL –

Part 414: Generic services-4 (FC-GS-4)

1 Scope

FC-GS-4 describes in detail the basic Fibre Channel services introduced in FC-FS.

The Fibre Channel services described in this document are

- Directory Service,
- Management Service and
- Alias Service.

In addition to the aforementioned Fibre Channel services, the Common Transport (CT) protocol is described. The Common Transport service provides a common FC-4 for use by the Fibre Channel services.

2 Normative references

2.1 Overview

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 referenced document (including any amendments) applies.

2.2 Approved references

ISO/IEC 14165-122, *Information technology – Fibre channel – Part 122: Arbitrated loop (FC-AL-2)* [ANSI INCITS 332-1999]

ISO/IEC 14165-251, *Information technology – Fibre channel – Part 251: Framing and signaling (FC-FS)* [ANSI INCITS 373-2003]

ISO/IEC 14776-222, *Information technology – Small computer system interface (SCSI) – Part 222: Fibre channel protocol for SCSI, 2nd Version (FCP-2)* [ANSI INCITS 350-2003].

2.3 References under development

At the time of publication, the following referenced standards were still under development. For information on the current status of the documents, or regarding availability, contact the relevant standards body or other organization as indicated.

ISO/IEC 14165-133, *Information technology – Fibre channel – Part 133*: *Switch Fabric-3 (FC-SW-3)* [ANSI INCITS 384-2004]

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ISO/IEC 14165-251, *Information technology – Fibre channel – Part 251*: *Primary commands-3 (SPC-3)* [ANSI INCITS 408-2005]

ISO/IEC 14776-412, *Information technology – Small computer system interface (SCSI) – Part 412*: *Architecture model-2 (SAM-2)*

ISO/IEC 14776-413, *Information technology – Small computer system interface (SCSI) – Part 413*: *Architecture model - 3 (SAM-3)* [ANSI INCITS 402-2005]

2.4 Other references

All references in this subclause were correct at the time of approval of this International Standard. The provisions of the referenced specifications, as identified in this subclause, are valid within the context of this International Standard. The reference to a specification within this International Standard does not give it any further statuswithin ISO/IEC; in particular, it does not give the referenced specification the status of an International Standard.

The following RFC documents are available from the RFC Editor, Information Sciences Institute, University of Southern California, 4676 Admiralty Way, Suite 1001, Marina del Rey, CA 90292-6695; (310) 822-1511 or (310) 823-6714 (fax); http://www.isi.edu/.

RFC 791, *Internet Protocol, STD 5*

RFC 1305, *Network Time Protocol (Version 3) Specification, Implementation and Analysis*, March 1992.

RFC 1321, *The MD5 Message-Digest Algorithm*, April 1992.

RFC 2030, *Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6 and OSI*, October 1996.

RFC 2104, *HMAC: Keyed-Hashing for Message Authentication*, February 1997.

RFC 2373*, IP Version 6 Addressing Architecture*, July 1998.

ANSI X9.30.2-1997, *Public Key Cryptography for the Financial Services Industry - Part 2: The Secure Hash Algorithm (SHA-1).*

ANSI INCITS 386-2004, *Information technology – Fibre Channel – HBA API (FC-HBA)*, Rev 13

INCITS TR-30-2002, *Information technology – Fibre Channel – Methodologies for Interconnects (FC-MI)*.

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