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Information technology – Small computer system interface-3 (SCSI-3) –

Part 321: Block commands (SBC)

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INFORMATION TECHNOLOGY – SMALL COMPUTER SYSTEM INTERFACE-3 (SCSI-3) –

Part 321: Block commands (SBC)

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 through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

2) In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC1. 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.

3) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 14776-321 was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

ISO/IEC 14776-321 is to be read in conjunction with ISO/IEC 14776-411, ISO/IEC 14776-311 and ISO/IEC 14776-351.[1)]

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

1) For details, see clause 2.

INTRODUCTION

The SCSI command set described in this document is designed to provide efficient peer-to-peer operation of input/output logical units by an operating system using block transfers. The SCSI command set assumes an underlying command-response protocol.

This SCSI command set provides multiple operating systems concurrent control over one or more input/output logical units. However, the multiple operating systems are assumed to coordinate their actions properly to prevent data corruption. This SCSI standard provides commands that assist with coordination between multiple operating systems. However, details of the coordination are beyond the scope of the SCSI command set.

At the time this standard was developed SCSI included the following:

- physical interconnects;
- transport protocols;
- shared command set;
- architecture model;
- common access method.

Please refer to the bibliography for examples of international standards referring to the above items.

INFORMATION TECHNOLOGY – SMALL COMPUTER SYSTEM INTERFACE-3 (SCSI-3) –

Part 321: Block commands (SBC)

1 Scope

This part of ISO/IEC 14776 defines the command set extensions to facilitate operation of SCSI block devices.

It specifies the functional requirements for the SCSI-Block Command set (SBC). SBC permits that SCSI block logical units, such as flexible disks, rigid disks, optical disks, etc. be attached to computers, and it provides the definition for their use.

This standard defines a logical unit model for SCSI block logical units. Also defined are SCSI commands that apply to SCSI block logical units.

The clause(s) of this standard pertaining to the SCSI block device class, implemented in conjunction with the applicable clauses of ISO/IEC 14776-311, fully specify the standard command set for SCSI block devices.

The objectives of this standard are the following:

a) permit an application client to communicate with a logical unit that declares itself to be a direct-access device, write-once device and optical memory device in the device type field of the INQUIRY command response data over an SCSI service delivery subsystem;

b) define commands unique to the type of SCSI block devices;

c) define commands to manage the operation of SCSI block devices;

d) define the differences between types of SCSI block devices.

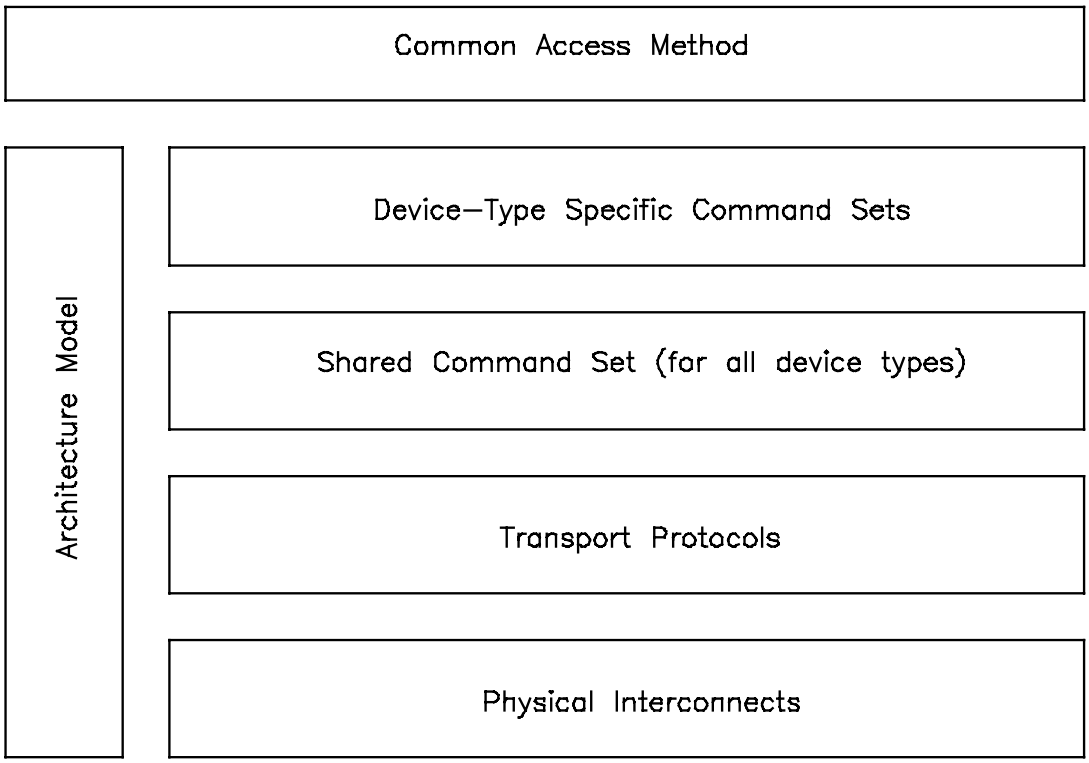

Figure 1 – SCSI standards – General structure

Figure 1 shows the general structure of SCSI standards. The figure does not imply a relationship such as a hierarchy, protocol stack, or system architecture. It indicates the applicability of a standard to the implementation of a given transport.

2 Normative references

2.1 Normative reference 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.

NOTE The term SCSI is used wherever it is not necessary to distinguish between the different types of SCSI.

2.2 Approved references

ISO/IEC 9316:1995, *Information technology – Small Computer System Interface-2*

NOTE ISO/IEC 9316 is referred to herein as SCSI-2. The term SCSI-3 in this standard refers to different versions of SCSI defined since SCSI-2.

ISO/IEC 13614:1995, *Information technology – Interchange on 300 mm optical disk cartridges of the write once read multiple (WORM) type using the SSF method*

ISO/IEC 14776-341:2000, *Information technology – Small Computer System Interface-3 (SCSI-3) – Part 341: Controller Commands (SCC)*

ISO/IEC 14776-411:1999, *Information technology – Small Computer System Interface (SCSI-3) – Part 411: SCSI-3 Architecture Model (SCSI-3 SAM)*

ISO/IEC 10090:1992, *Information technology – 90 mm optical disk cartridges, rewritable and read only, for data interchange*

2.3 References under development

At the time of publication, the following referenced standards were still under development.

ISO/IEC 14776-311, – *Information technology – Small Computer System Interface-3 (SCSI-3) – Part 311: Primary Commands*

ISO/IEC 14776-351, – *Information technology – Small Computer System Interface-3 (SCSI-3) – Part 351: Medium Changer Commands*

ISO/IEC 14776-362, – *Information technology – Small Computer System Interface (SCSI 3) – Part 362: Multimedia commands-2 (MMC-2)*