AS/NZS ISO/IEC 14763.2:2014
ISO/IEC 14763-2:2012

AS/NZS ISO/IEC 14763.2:2014

Australian/New Zealand Standard™

Information technology—Implementation and operation of customer premises cabling

Part 2: Planning and installation

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CT-001, Communications Cabling. It was approved on behalf of the Council of Standards Australia on 3 June 2014 and on behalf of the Council of Standards New Zealand on 20 April 2014.
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The following are represented on Committee CT-001:

Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Information Industry Association
BICSI South Pacific (Australia)
BICSI South Pacific (New Zealand)
Electrical Trades Union
Energy Networks Association
Engineers Australia
National Electrical and Communications Association
Telecommunications Users Association of New Zealand
Telstra Corporation

Additional Interests:

Australian Communications and Media Authority
Communications Alliance
National Broadband Network

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR AS/NZS ISO/IEC 14763.2.

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Part 2: Planning and installation

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CT-001, Communications Cabling.

This Standard is identical with, and has been reproduced from ISO/IEC 14763-2:2012, *Information technology—Implementation and operation of customer premises cabling*, Part 2: *Planning and installation*.

As this Standard is reproduced from an International Standard, the following applies:

(a) In the source text 'this part of ISO/IEC 14763' should read 'this Australian/New Zealand Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
IEC		AS/NZS IEC	
61935	Specification for the testing of balanced and coaxial information technology cabling	61935	Specification for the testing of balanced and coaxial information technology cabling
61935-1	Part 1: Installed balanced cabling as specified in ISO/IEC 11801 and related standards	61935.1	Part 1: Installed balanced cabling as specified in ISO/IEC 11801 and related standards (IEC 61935-1, Ed.3.0 (2009) MOD)
ISO/IEC		AS/NZS	
11801	Information technology—Generic cabling for customer premises	3080	Information technology—Generic cabling for customer premises (ISO/IEC 11801:2011, MOD)
		AS/NZS ISO/IEC	
14763	Information technology—Implementation and operation of customer premises cabling	14763	Telecommunications installations—Implementation and operation of customer premises cabling
14763-3	Part 3: Testing of optical fibre cabling	14763.3	Part 3: Testing of optical fibre cabling (ISO/IEC 14763-3:2011, MOD)
24702	Information technology—Generic cabling—Industrial premises	24702	Telecommunications installations—Generic cabling—Industrial premises
24764	Information technology—Generic cabling systems for data centres	24764	Generic cabling systems for data centres

Only normative references that have been adopted as Australian or Australian/New Zealand Standard have been listed.

The term 'normative' has been used in this Standard to define the application of the annex to which it applies. A 'normative' annex is an integral part of a Standard.

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INTRODUCTION

The importance of services delivered by information technology cabling infrastructure is similar to that of utilities such as heating, lighting and electricity supplies. As with those utilities, interruptions to service can have a serious impact. Poor quality of service due to lack of planning, use of inappropriate components, incorrect installation, poor administration or inadequate support can threaten an organisation's effectiveness.

There are four phases in the successful implementation of information technology cabling

a) design,

b) specification – the detailed requirement for the cabling, including the planning of its accommodation and associated building services addressing safety and specific environments (e.g. electromagnetic) together with the quality assurance requirements to be applied,

c) installation – in accordance with the requirements of the specification,

d) operation – the management of connectivity and the maintenance of transmission performance during the life of the cabling.

This International Standard supports the specification, implementation and operation of generic information technology cabling designed in accordance with the standards and associated documents developed by ISO/IEC JTC 1/SC 25 and addresses the following topics

- specification depending on the application, environment, building infrastructure and facilities, etc.,
- quality assurance,
- installation planning (including pathways and spaces) depending on the application, environment, building infrastructure and facilities, etc,
- installation practice (including pathways and spaces),
- documentation and administration,
- testing,
- inspection,
- operation,
- maintenance and maintainability (based on any impact from planning and installation),
- repair and repairability (based on any impact from planning and installation).

It does not cover those aspects of installation associated with the transmission of signals in free space between transmitters, receivers or their associated antenna systems (e.g. wireless, radio, microwave or satellite).

The following normative Annexes support specific aspects of planning and installation

- Annex A: Optical fibre polarity,
- Annex B: Common infrastructures within multi-tenant premises.

The requirements and recommendations of the main body of this standard are premises-independent. The following normative Annexes include requirements for generic cabling in accordance with specific standards

- Annex C: Cabling in accordance with ISO/IEC 11801,
- Annex D: Cabling in accordance with ISO/IEC 15018,
- Annex E: Cabling in accordance with ISO/IEC 24764,
- Annex F: Cabling in accordance with ISO/IEC 24702,

- Annex G: Cabling in accordance with ISO/IEC TR 24704.

This standard sets out the responsibilities of information technology cabling installers and premises owners, and is intended to be referenced in relevant contracts. The owners may delegate selected responsibilities to designers, specifiers, operators and maintainers of installed information technology cabling.

This standard is also relevant to

- architects, building designers and builders,
- main contractors,
- designers, suppliers, installers, inspectors (auditors), building managers, maintainers and owners of information technology cabling,
- public network providers and local service providers,
- end users.

This International Standard is one of a number of documents prepared in support of international standards and technical reports for cabling design produced by ISO/IEC JTC 1/SC 25. Figure 1 shows the inter-relationship between these standards and technical reports.

Users of this standard should be familiar with the applicable cabling design standard.

NOTE Telecommunications infrastructure affects raw material consumption. The infrastructure design and installation methods also influence product life and sustainability of electronic equipment life cycling. These aspects of telecommunications infrastructure impact our environment. Since building life cycles are typically planned for decades, technological electronic equipment upgrades are necessary. The telecommunications infrastructure design and installation process magnifies the need for sustainable infrastructures with respect to building life, electronic equipment life cycling and considerations of effects on environmental waste. Telecommunications designers are encouraged to research local building practices for a sustainable environment and conservation of fossil fuels as part of the design process.

AUSTRALIAN/NEW ZEALAND STANDARD

Information technology—Implementation and operation of customer premises cabling

Part 2: Planning and installation

1 Scope

This part of ISO/IEC 14763 specifies requirements for the planning, installation and operation of cabling and cabling infrastructures (including cabling, pathways, spaces, earthing and bonding) in support of generic cabling standards and associated documents.

The following aspects are addressed

- specification of the installation,
- quality assurance,
- installation planning,
- installation practice,
- documentation,
- administration,
- testing,
- inspection,
- operation,
- maintenance,
- repair.

The requirements of Clauses 5 to 14 of this standard are premises-independent and may be amended by the requirements of premises-specific Annexes.

This part of ISO/IEC 14763 excludes

- specific requirements applicable to other cabling systems (e.g. mains power cabling); however, it takes account of the effects other cabling systems may have on the installation of information technology cabling (and vice versa) and gives general advice,
- those aspects of installation associated with the transmission of signals in free space between transmitters, receivers or their associated antenna systems (e.g. wireless, radio, microwave or satellite).

This standard is applicable to certain hazardous environments but does not exclude additional requirements which are applicable in particular circumstances (e.g. electricity supply and electrified railways).

Safety (electrical safety and protection, optical power, fire, etc.) and electromagnetic compatibility (EMC) requirements are outside the scope of this international standard and are covered by other standards and regulations. However, information given in this international standard may be of assistance in meeting these standards and regulations.