



TBITS 06.9: Canadian Open Systems Application Criteria (COSAC), Telecommunications wiring system in Government-Owned and leased buildings - Implementation Criteria

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TBITS 06.9: Canadian Open Systems Application Criteria (COSAC), Telecommunications wiring system in Government-Owned and leased buildings - Implementation Criteria

1. Reference

1.1 Name

- Telecommunications Wiring System in Government-Owned and Leased Buildings

1.2 Identifier

- TBITS-6.9

1.3 Category

- Standard – Revised Dec. 1997

1.4 Effective Date

- Immediately Upon Publication

1.5 Approving Authority

- Treasury Board of Canada (TB 817649)

1.6 Maintenance Authority

- Information Technology Management
- Treasury Board Secretariat (TBS)

1.7 Cross-Index

- Federal Government OSI Policy (TB804928, March 1987)
- Management of Information Technology Policy & Guidelines, Information Management Volume, Treasury Board Manual, 1990
- TBITS-6.1, Canadian Open Systems Application Criteria (COSAC) – Overview
- TBITS-6.2, COSAC LAN Profile
- "Generic Base-Building Telecommunications Cabling Infrastructure Normative References & Generic Technical Criteria" (Public Works and Government Services Canada, March 1992).
- CAN/CSA T529-95: "Telecommunications Cabling Systems in Commercial Buildings"
- CAN/CSA T528-93: "Design Guidelines for Administration of Telecommunications Infrastructure in Commercial Buildings"
- CAN/CSA T530-M90: "Building Facilities, Design Guidelines for Telecommunications"
- CAN/CSA T527-94: "Grounding and Bonding for Telecommunications in Commercial Buildings"
- TSB67: "Transmission Performance Specification for Field Testing of Unshielded Twisted Pair Cabling Systems"
- TSB75: "Additional Horizontal Cabling Practices for Open Offices"
- IEEE P1143/D7, "Guide on Shielding Practice for Low Voltage Cables" (Draft)
- ISO/IEC 8802-3: 1996 [ANSI/IEEE Std 802.3, 1996 Edition], Information technology–Local and metropolitan area networks–Part 3: Carrier sense multiple access with collision detection (CSMA) access method and physical layer specifications.
- IEEE Std. 802.3u-1995, Supplement to ISO/IEC 8802-3:1993, Local and Metropolitan Area Networks: Media Access Control (MAC) Parameters, Physical Layer, Medium Attachment Units and Repeater for 100 Mbps Operation, Type 100BaseT
- ISO/IEC 8802-5: [ANSI/IEEE Std 802.5-1995], Information Technology–Local and metropolitan area networks–Part 5: Token ring access method and physical layer specifications.
- ISO/IEC 10038: 1993 [ANSI/IEEE Std 802.1D, 1993 Edition], Information technology–Telecommunications and information exchange between systems–Local area networks–Media access control (MAC) bridges.
- IEEE Std. 802.12-1995, Demand Priority Access Method Physical Layer and Repeater Specifications for 100 Mbps Operation
- af-phy-0015.000: "ATM Physical Medium Dependent Interface Specification for 155 Mbps over Twisted pair Cable"
- af-phy-0040.000: "Physical Interface Specification for 25.6 Mbps over Twisted Pair"
- af-phy-0046-000: "622.06 Mbps Physical Layer"
- af-phy-0047-000: "155.52 Mbps Physical Layer Specification for Category 3 UTP"

2. Purpose

This standard establishes the minimum requirements governing the telecommunications wiring system used to provision voice, data, and video in government-owned and leased buildings (hereinafter called 'federal buildings').

The standard provides a uniform, integrated approach to voice, data, and video telecommunications wiring (or 'cabling') in all buildings occupied by federal government departments and agencies. Its implementation will provide an advantageous return on investment, maximize the timeliness of the management and administration of moves, additions and changes of government personnel in the workplace, and reduce incremental and costly physical additions to the cable plant over its lifetime.

3. Application

This standard is mandatory for all new federal buildings, and for retrofits of existing ones. It prescribes requirements that provide a uniform, integrated approach to voice, data, and video telecommunications wiring within federal buildings, and between them in the case of campus environments. Additionally, installations must conform to the Canadian Electrical Code, the National Building Code, and Provincial Building Codes as appropriate.

4. Specifications

With the exception of a number of restrictions and enhancements to better suit government requirements, the following standards shall be used in the design, installation, management and administration of telecommunications wiring systems in government-owned and leased buildings:

- Canadian Standards Association standard CAN/CSA T529-95: "Telecommunications Cabling Systems in Commercial Buildings";
- Canadian Standards Association standard CAN/CSA-T528-93: "Design Guidelines for Administration of Telecommunications Infrastructure in Commercial Buildings";
- Canadian Standards Association standard CAN/CSA-T530-M90: "Building Facilities, Design Guidelines for Telecommunications";
- Canadian Standards Association standard CAN/CSA-T527: "Grounding and Bonding for Telecommunications in Commercial Buildings";

Restrictions and enhancements are described in detail in Section 3, Specifications, of the companion COSAC Profile. Of significance is that this standard recognizes only two telecommunications media types: unshielded twisted pair cable, and optical fibre cable.

5. Qualifications

Unless expressly forbidden by local regulations which may take precedence over federal ones, this standard is applicable throughout Canada.

6. Implementation

This standard will assist departments and agencies in establishing a clear preference for non-proprietary, standards-based telecommunications wiring or cabling products and services in government-owned and leased buildings.

The provisions of the standard are effective immediately upon publication.

7. Government standards working group

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8. Where to Obtain Copies?

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- [By TBITS Number](#)

ANSI documents

American National Standards Institute

430 Broadway

New York, NY, 10018

Tel: (212) 642-4900

www.ansi.org

CSA documents

Canadian Standards Association

178 Rexdale Boulevard

Rexdale, Ontario, M9W 1R3

Tel: (416) 747-4044

www.csa.ca

EIA and TIA documents

Global Engineering Documents Inc.

15 Inverness Way East

Englewood, CO 80112-5704

(800) 854-7179

www.cebuis.org

IEEE documents

Institute of Electrical and Electronic Engineers

IEEE Service Centre

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