Product Standard

General Interworking:
Transport Service (XTI) V2

The Open Group

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Product Standard

General Interworking: Transport Service (XTI) V2

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Product Standard

NAME

Transport Service (XTI) V2

LABEL FOR LOGO

No label.

DESCRIPTION

This Product Standard provides a single programming interface to a variety of transport services: OSI, TCP/IP, UDP/IP, NetBIOS. It thereby facilitates the writing of distributed applications, independent of network technology. It is an enhancement to the Transport Service (XTI) Product Standard.

The enhancements are:

- Changes to remove any hardware data-length dependencies or restrictions. This is known as Data Size Neutral (or N-bit clean). It is of particular relevance to the ongoing move to 64-bit CPUs.
- A number of other improvements including some that are incorporated in the extensions to IEEE 1003.1 being defined by the IEEE P1003.1g project. At the time of publication of the Networking Services, Issue 5 Specification,[1] the P1003.1g extensions to IEEE 1003.1 were not yet ratified by the IEEE, and attempts were being made to align them and the Networking Services, Issue 5 Specification.

Although a number of the defined features do depend to a greater or lesser extent on the underlying protocol, these are clearly described in the referenced specification, which also includes guidance on writing protocol-independent application software.

CONFORMANCE REQUIREMENTS

Human-Computer Interface

Not applicable.

Portability Interface

Networking Services, Issue 5 Specification, Chapters 1 to 7 inclusive.

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1. CAE Specification, January 1997, Networking Services, Issue 5 (ISBN: 1-85912-165-9, C523).

Programming Language Environment

C Language. If the Portability Environment is Internationalized System Calls and Libraries Extended or Internationalized System Calls and Libraries Extended V2, the dialect is ISO C, in which case ISO C source programs invoking the services of this Product Standard must be supported by the registered product.

Interoperability

- Data Interchange Formats

  None.

- Communications Interfaces and Protocols

  Products conforming to the Transport Service (XTI) V2 Product Standard shall be available in configurations that support at least one of the following:

  — ISO/IEC ISP 10608-2:1992, Information Technology — International Standardized Profiles TAnnnn — Connection-mode Transport Service over Connectionless-mode Network Service — Part 2: TA51 Profile, including Subnetwork-dependent Requirements for CSMA/CD Local Area Networks (LANs).

  — ISO/IEC ISP 10608-5:1992, Information Technology — International Standardized Profiles TAnnnn — Connection-mode Transport Service over Connectionless-mode Network Service — Part 5: Definition of Profiles TA1111/TA1121 including Subnetwork-dependent Requirements for X.25 Packet-switched Data Network using Virtual Calls.

  — ISO/IEC ISP 10609-6:1992, Information Technology — International Standardized Profiles TB, TC, TD, TE — Connection-mode Transport Service over Connection-mode Network Service — Part 6: Definition of Profiles TC1111/TC1121.

  — ISO/IEC ISP 10609-7:1992, Information Technology — International Standardized Profiles TB, TC, TD, TE — Connection-mode Transport Service over Connection-mode Network Service — Part 7: Definition of Profiles TD1111/TD1121.

  — TCP/IP

  — UDP/IP

  Guidance on the Internet Protocol Suite may be found in the Guide to the Internet Protocol Suite.[2]

  Support for other protocol profiles or protocols, for example, NetBIOS, can be declared in the Conformance Statement.

2. Guide, April 1991, Guide to the Internet Protocol Suite (ISBN: 1-872630-08-1, G110).

OPERATIONAL ENVIRONMENT

Not applicable.

PORTABILITY ENVIRONMENT

Internationalized System Calls and Libraries, Internationalized System Calls and Libraries Extended, or Internationalized System Calls and Libraries Extended V2.

OVERRIDING STANDARDS

None.

INDICATORS OF COMPLIANCE

A Test Report from a currently authorized release of the VST5 Test Suite.

MIGRATION

Mainly upwards-compatible from Transport Service (XTI). There are a few minor incompatibilities arising from alignment with the emerging formal standard and the Data Size Neutral enhancements.