

Information Technology Resource Management Council (ITRMC)

ENTERPRISE STANDARDS – S3000 NETWORK AND TELECOMMUNICATIONS

Category: S3540 – NETWORK CONNECTIVITY AND TRANSPORT – LAN BACKBONE

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I. DEFINITION

A Local Area Network (LAN) backbone is the infrastructure used to support an extended LAN campus. A LAN is used to link computers and/or peripherals in a limited area, usually less than two (2) miles. A LAN allows users to communicate and share information, data, and applications.

II. RATIONALE

Idaho State government must be able to easily, reliably, and economically communicate data and information to conduct State business. LAN backbones are endorsed by ITRMC for use in State government local area network campuses. The standards recommended by the Institute of Electrical and Electronics Engineers (IEEE) are recognized as the primary standards for LAN backbones.

III. APPROVED STANDARD(S)

1. 100BaseT – Ethernet (IEEE 802.3);
2. 1000BaseT – Ethernet (IEEE 802.3); and
3. ATM.

IV. APPROVED PRODUCTS(S)

Standards-based products and architecture

V. JUSTIFICATION

Products and LAN backbone implementations must conform to one of the approved standards. Future products and LAN backbone implementations should conform to Ethernet (IEEE 802.3) and *ITRMC [Standard 3510 – Network Connectivity and Transport – Local Area Network](#)*.

VI. TECHNICAL AND IMPLEMENTATION CONSIDERATIONS

The deployment of a Local Area Network Backbone is a complex task that requires skilled resources. It is also important to carefully consider the security implications of the deployment, administration, and operation of a LAN backbone.

VII. EMERGING TRENDS AND ARCHITECTURAL DIRECTIONS

Recent trends indicate increasing use of Ethernet (IEEE 802.3) technologies in Local Area Network backbone implementations.

VIII. REVIEW CYCLE

Twelve (12) Months

IX. TIME LINE

Last Reviewed: September 13, 2006

Last Revised: September 13, 2006

Effective Date: April 24, 2002

X. REVISION HISTORY

9/13/06 – Section VIII, Review Cycle, updated to reflect 12-month review rather than 6-month review. Warranted due to well established industry standard that is not likely to change in the near future.