5 Criteria
Two-port MAC Relay

Five Criteria: Broad Market Potential

Public networks represent a new and very broad application space for IEEE 802 technologies and specifically for Provider Bridges (P802.1ad) and Ethernet in the First Mile (802.3ah). Numerous vendors and potential users (the Service Providers) have expressed the need to integrate Ethernet link technologies with their existing infrastructure at a low cost, while providing the manageability and remote diagnostic capabilities traditionally offered by circuit switched technologies.

Five Criteria: Compatibility

Devices built to this standard will be compatible with point-to-point media offering 802.3-compatible services, and with all 802.1 Bridge standards. A minimum set of managed objects, compatible with the minimized functionality of this device, will be defined.

Five Criteria: Distinct Identity

Existing 802 standards define Repeaters, which are transparent and have no MACs, and Bridges, which are less transparent, and have MAC address filtering and loop prevention capabilities. This standard will define a device with MACs and frame buffers, intermediate transparency, and no address filtering or loop prevention. As a separate document from media standards and from the 802.1 Bridge standards, it will be easily found.

Five Criteria: Technical Feasibility

Numerous vendors supply devices with somewhat more or less functionality than this device. The few novelties in the definition of the various functions are straightforward extensions of existing capabilities.

Five Criteria: Economic Feasibility

The existence of relatively low-volume Media Converters and high-volume two-port Home Routers demonstrates that this device should be economically viable. Installation cost is known to outweigh unit cost in Home Routers; the elimination of required configuration in this device promises to reverse this imbalance.