



# Operational Description

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This document is intended to give the reader an overview of how the Streaming Media Application Board (SMAS) works. Additional information is available in the Block Diagram and User Manual attachments to form 731.

The SMAS is designed to interface E1/T1 telephone connections to a standard personal computer. A PCI interface and an I2O protocol handle the transport of multimedia traffic (voice, video, and data) from the board to the PC. A 32-bit local bus interfaces the board and the E1/T1 connection. The card enables system integrators to implement services such as Automatic Call Distribution (ACD), Interactive Voice Response (IVR) and Private Branch Exchange (PBX) for E1/T1 connections.

A distributed organization of the computation power and the Digital Switching Network (DSN) limits the traffic over the PCI bus. On one side, the DSN communicates with the I960 and I2O to get a peer-to-peer communication between two SMAS cards or between a telephone channel and a hard drive. On the other side, a channel connection, compression, services, and echo canceling are handled by the C6. Having a DSN level at C6, which means that data is available in uncompressed and unpacked form, enables conferencing summarization at that level. DSN is entirely controlled by the call control, which indicates which channels are connected, which signaling technique are used, and which compression and packaging is used.

The line adaptation (LAD) consists of three main functions; I/O, packing and compression. Most of this functionality is handled by the digital signal processing units. The I/O consists of interfaces to external formats such as IP, HD, E1/T1 and ISDN BRI. The supported packaging will include ATM frames and ISDN BA. The compression unit converts compressed data to a format that is feasible for the DSN. The compression standards supported will be G721, G722, G723.1, G711, G729A and G726.