Whether for remote access over ISDN as well as over GSM, for access to
a corporate LAN or to the Internet: AVM's proven solutions integrate the full
potential of ISDN communications for professional applications.

- **ISDN-Controller for primary-rate ISDN and the PCI bus**
- **Runs under Windows® XP, 2000, NT, Linux and Novell NetWare**
- **Open platform for all ISDN applications**
- **Data rate up to 30 x 64 kbit/s**

AVM
ISDN-Controller T1/T1-B

30 Users Simultaneously

The primary-rate ISDN interface provides access to the new digital communications medium over 30 data channels at 64,000 bit/s each. As the number of telecommunications applications increases, the demand for high-speed, ISDN-based connections to remote workstations, hosts, file servers or routers is also growing.

ISDN's two access models — the basic-rate and primary-rate interfaces — represent powerful platforms for the implementation of wide-area networks. The T1 family of AVM ISDN-Controllers comprises high-performance solutions for tasks in this communications field. The AVM ISDN-Controllers T1 and T1-B are 19" ISDN system solutions with a PC bus connection for the primary-rate (S_{2M}) interface.

The AVM ISDN-Controller T1

The AVM ISDN-Controller T1 is an answer to the growing demand for high-speed connections between workstations and servers. The AVM ISDN-Controller T1's technology guarantees full throughput at the S_{2M} interface. With a network of transputers and nine megabytes of RAM, the T1 processes all 30 data channels of the S_{2M} interface simultaneously.

The AVM T1's engineering concept permits seamless integration in all kinds of communications environments, such as local networks or data processing centers, for example. The far-reaching capabilities of a T1-based communications solution make a wide variety of applications feasible. In conjunction with AVM networking products, the T1 adds WAN capabilities to a local-area network. Applications can access ISDN and all its features through the COMMON ISDN API 2.0. This standardized interface guarantees compatibility and portability of applications, regardless of the hardware used. The AVM ISDN-Controller T1 is the powerful platform for all standard solutions on primary-rate ISDN lines.

The AVM ISDN-Controller T1-B

The AVM ISDN-Controller T1-B is the logical extension of the AVM T1. Equipped with an additional hardware booster, the T1-B is the optimum platform for demanding ISDN applications. This controller variant has seven microprocessors and 17 megabytes of RAM.

Applications for the AVM T1-B build on CAPI 2.0 and thus use all ISDN services. In addition to the T1's features, the T1-B's controller software offers important functions, including DTMF detection and generation, as well as ISDN Supplementary Services. These features open up new areas of application for the T1-B.

In connection with the MultiProtocol Router, the AVM ISDN-Controller T1-B becomes the WAN platform for a corporate network. With AVM's Network Distributed ISDN or Windows NT Access Server, the AVM T1-B serves as a dial-in node for remote users' LAN access over ISDN or GSM. Other possible applications include Euro-file transfer servers or unified messaging systems (UMS).

CAPI
COMMON ISDN INTERFACE

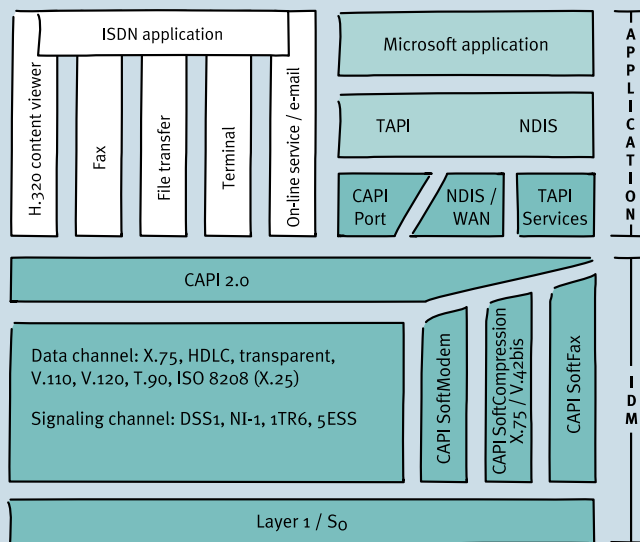HIGH-PERFORMANCE COMMUNICATION BY...

AVM

A System Solution in 19" Format

The AVM ISDN-Controllers T1 and T1-B are built as external units in a 19" housing. The connection to the PC is realized by a high-speed serial link with PCI bus interface. Up to four active AVM ISDN-Controllers can be installed in one host PC. With four AVM ISDN-Controller T1s or T1-Bs, the PC thus provides a maximum of 120 B channels.

Application Examples

Thanks to its ample palette of data protocols, there are practically no limits to the uses of the T1/T1-B. The ability to manage 30 active connections simultaneously makes these controllers the ideal hardware basis for remote node applications. If higher bandwidth is necessary, additional B channels can be bundled for a data connection at any time.

Block Diagram

ISDN application
- H.320 content viewer
- Fax
- File transfer
- Terminal
- On-line service / e-mail

Microsoft application

TAPI   NDIS

CAPI Port | NDIS / WAN | TAPI Services

CAPI 2.0

Data channel: X.75, HDLC, transparent, V.110, V.120, T.90, ISO 8208 (X.25)

Signaling channel: DSS1, NI-1, 1TR6, 5ESS

CAPI SoftModem

CAPI SoftCompression X.75 / V.42bis

CAPI SoftFax

Layer 1 / S0

APPLICATION

IDM

Controller Software/ ISDN Protocols

The AVM ISDN-Controllers T1 and T1-B are supplied with controller software for Windows XP, 2000, NT, Linux and NetWare, as well as DOS drivers for test purposes.

International approvals and supported D channel protocols make the products suitable for use in international projects. The ISDN-Controller downloads its operating and protocol software from the host PC on initialization. CAPI guarantees applications transparent access to the full capabilities of the ISDN-Controller. Protocols supported by the controllers include X.75, HDLC transparent, ISO 8208/X.31 DTE-DTE, transparent, T.70, T.90, V.110, V.120 and ISO 3309 including HSCSD. The AVM ISDN-Controllers T1 and T1-B are completely software-driven. This concept ensures that the T1 can be enhanced with new features at any time.

In this way high-powered WAN solutions can be implemented in conjunction with AVM's networking products for Windows XP, 2000 and Windows NT.

Typical applications include internetworking branch offices through routers, or providing dial-in ports for field employees. An especially advantageous use of the AVM ISDN-Controller T1/T1-B consists in Mobile ISDN dial-in over GSM: users can access data and corporate resources over cellular connections where no fixed-wire line is available.

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