



Data Systems

P.O. Box 3041  
Sarasota, FL 34230  
(813) 371-0811  
Fax: (813) 378-1893

For more information, contact:  
Greg Wortman, ADC  
(612) 946-3104  
Jim Horvath, Loral  
(813) 378-6711

**LORAL AND ADC SIGN MULTI-YEAR AGREEMENT  
TO MARKET ATM SWITCH**

May 18, 1993, Sarasota, FL - Loral Data Systems and ADC Telecommunications have signed a multi-year marketing agreement for an asynchronous transfer mode (ATM) switching system that will be available for field trials by December 1993.

Under the agreement, ADC will provide North American public network marketing, sales, service and support for the switching system, while Loral Data Systems will develop and manufacture the product.

"This switch specifically addresses the carriers' needs to offer ATM and other data services with a low initial investment that will be commensurate with the revenues they can generate in the near-term. The ability of this switch to aggregate multiple services, such as Frame Relay, SMDS, and ATM, onto a shared facility at the edge of the public network meets the service and price demands of end users," said Alan G. Hutcheson, vice president and general manager of ADC's transmission division. "The switch is one part of ADC's Broadband Soneplex<sup>TM</sup> Platform, which also comprises of a high performance ATM access concentrator that will be available in 1994."

As part of the multi-year agreement, ADC will initially purchase 10 systems to be used in customer field trials and training. After the initial product release, Loral and ADC intend to jointly develop additional ATM systems to meet the service requirements of public network carriers.

The switching system is designed around a multi-service ATM architecture for placement in central and remote offices as well as customer premises environments. As a single integrated multi-service platform, the system will serve as a remote switch or hubbing platform for Frame Relay, SMDS, ATM, and high performance isochronous services. The switch backbone is a shared medium virtual asynchronous transfer mode (VATM) bus with non-blocking bandwidth of up to five (5) Gigabits/second and seamless extension ability up to 80 Gigabits/second capacity. The system will conform to Bellcore's NEBS transmission product standard as well as emerging ANSI, CCITT and other industry standards for ATM, SMDS, and Frame Relay services.

The multi-service architecture will enable network service providers to offer a variety of services to end users, including LAN interconnection, multi-media transfers, high speed data transfers, packet video and constant or variable bit rate bandwidth. The system can be deployed as a stand-alone access switch, configured as an ATM backbone or as a concentrator for a very large ATM central office switch as they are deployed in the carrier's network. The system features

industry standard interfaces such as NNI, UNI, SNI, and ICI. The network management system currently supports the Simple Network Management Protocol (SNMP), with future migration to the Common Management Information Protocol (CMIP) interface.

Loral also will continue to market, sell, and support ATM switches to private carriers and end users including government agencies worldwide.

LORAL DATA SYSTEMS, a division of New York based LORAL CORPORATION, supplies telemetry and instrumentation systems, military tape recorders, and aviation flight data and voice recorders to government and commercial customers worldwide. Loral Corporation is a high technology company that primarily concentrates in defense electronics, communications, and space systems.

ADC TELECOMMUNICATIONS, INC. is a leading supplier of transmission and networking systems for voice, data, and video networks and of physical connectivity products for fiber optic, twisted-pair, and coaxial networks. Customers include local exchange carriers, other network service providers and manufacturers, enterprise network organizations, broadcast and cable TV network operators. Wholly owned business units in North America include American Lightwave Systems, ADC Fibermux, ADC Kentrox, and ADC Canada. The company also operates international business units in Australia, Belgium, England, Mexico, and Venezuela.

# ADC launches corporate ATM strategy

Carol Wilson, Editor

**A**DC Telecommunications Inc. is attempting to build on the public and private network expertise of its diverse units to launch a corporate strategy for asynchronous transfer mode (ATM) technology that spans both networks and provides gateways between the two. A key aspect of the strategy is providing cost-effective entry into ATM and a smooth migration path for carriers and customers, said ADC President and CEO William J. Cadogan.

The company's new ATM product line will be formally launched at Interop Fall, which will be held Aug. 24-26 in San Francisco. The line expands on public network ATM products, including a small ATM switch, announced earlier as part of a joint marketing agreement between ADC Transmission Division and Loral Data Systems (*Telephony*, May 24, page 12).

Included in the ATM effort is ADC Fibermux, an enterprise network vendor; ADC Kentrox, which provides access products to both public and private networks; and ADC Transmission, a public network access and transport product provider. The result is a product line that provides maximum flexibility, ease of introduction and migration to new service levels, said Alex Dobrushin, vice president of marketing for ADC Kentrox.

"We want to provide a level of comfort to the customer that is particularly im-

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## Bellcore TAs to drive low-speed SMDS

Paula Bernier, Associate Editor-News

**B**ellcore has issued two new technical advisories that will allow companies to affordably use switched multimegabit data services (SMDS) for their low-speed data needs.

Generic Requirements for Low Speed SMDS Access, TA-TSV-1239, Issue 1, and Frame Relay Access to SMDS, TA-TSV-1240, Issue 1, are frame-based methods that will make SMDS accessible at 56 kb/s and 64 kb/s.

"We see these as greatly increasing the availability of SMDS because they make SMDS accessible to the low-speed data market, so a low-speed [local area network] interconnection on traditional [Systems Network Architecture] can now use SMDS," said Ray Provan, member of technical staff at Bellcore and co-author of the advisories. "Before, if a company had a few sites that needed a T-1 to connect their sites and had a few low-speed sites, SMDS would not have been an option because you would have had to pay for the extra bandwidth that you didn't need. Now they can tailor the bandwidth for each site."

In writing the advisories, Bellcore built upon the SMDS Interest Group's specifications for low-speed SMDS (see story on page 30), expanding on their support of SMDS features and defining what features must be supported in terms of low-speed access, as well as a near-term architecture to support the low-speed access, said Provan.

TA-1239 uses the data exchange interface (DXI) to encapsulate SMDS data for delivery to an SMDS switch. TA-1240 uses basically the same method, but implements the SMDS interface protocol (SIP) relay to encapsulate SMDS data in a frame relay frame. This allows customers to use a frame relay permanent virtual circuit service at a particular location to communicate with a location using SMDS, and eliminates the need for multiple access interfaces.

"[Another] advantage to the service is the fact that it brings [customer premises equipment] costs in line with other LAN alternatives—say frame relay or private lines," said Provan. "You don't need to use a special DSU as you would for SMDS at other speeds."

The advisories are currently out for industry review and are expected to be published as technical requirements by end of the year.

portant when you are moving into a new technology," he commented. "We expect the market to start with lower speed access to ATM service, such as today's frame relay and SMDS. We believe we have provided a clear migration path for customers from that level forward."

The product portfolio includes two ATM access concentrators. The AAC-3 is designed to sit in the public network or a large campus setting and concentrate SMDS, frame relay, voice and video services onto a shared facility for transport to a switch. The lower-speed AAC-1 concentrator is designed for the customer premises or the public network and features multiple interfaces for transport of multiple services over a T-1 line.

Both products were joint efforts of ADC Transmission and ADC Kentrox and are designed to be low-cost and high-performance products with a wide number of available interfaces, said Ken Neighbors, senior product manager for ATM products at ADC Transmission.

Also from ADC Kentrox is the DataSMART T-3/E-3 ATM DSU, which will typically serve as an interface between a local area router and the ATM switch, providing SMDS, frame relay and native ATM interfaces. The ADSU is software-programmable to serve as a standard time division multiplex DSU, a switched multi-megabit data service DSU or an ATM DSU.

"Customers will be able to migrate to a different switching fabric without changing out their equipment," said Dobrushin.

On the enterprise network side, ADC Fibermux is introducing the ATMosphere backbone hub as a single point of consolidation for voice, video and local area network signals. Current Crossbox multiLAN hub family products will be upgradeable to ATM functionality as well with field upgrades.

The ATM switch already announced is designed to sit at the edge of the public network, providing 5-Gb/s non-blocking bandwidth, and can grow in 5-Gb/s increments up to 80 Gb/s. It can be configured as a stand-alone access switch, as part of an ATM backbone network or as a traffic concentrator for a larger, regionally located ATM switch. ■

# Loral Data Systems CPS100 Cell Packet Switch

