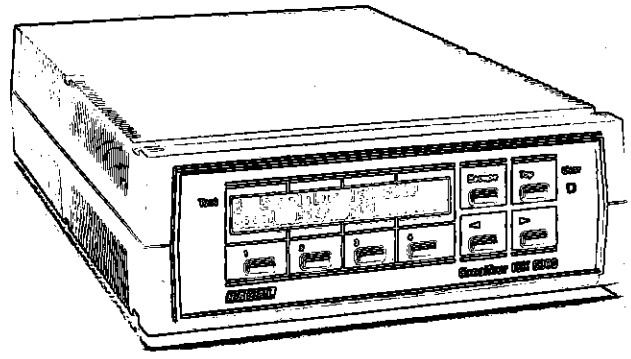


- **Two N by 56/64 Kbps DTE ports**
- **Full and fractional T-1 compatibility**
- **Standalone and central site models**
- **Protection switching capability**
- **Integral DACS compatibility**
- **CMS™ 400 and complete SNMP agent for standards-based management**
- **Extended SNMP MIB provides extensive diagnostics and control**
- **Flash memory for field upgrades**
- **TELNET client support**

Application Flexibility

The Excalibur™ ISX (Integrated Services Express) 5300 multiplexer is designed to transport LAN, PBX, voice, Excalibur ISX 5010 subrate multiplexer, and other data applications over a full or fractional T-1 link, while avoiding the complexity of a full-featured multiplexer. Standalone and central site models, housed in the high-density Excalibur Card Carrier chassis, are available with single, dual, or triple T-1 network interfaces.

The two DTE ports each support N by 56 or N by 64 Kbps applications, providing maximum carrier compatibility. Each port is equipped with a dual strap-selectable RS-232/ V.35 or RS-449/RS-530 interface.

Operating Flexibility

Integral protection switching capabilities automate restoral of T-1 networks. The DS0 channels can be assigned to a particular T-1 link and automatically switched to a backup link in the event the primary link fails, due to loss of signal or per AT&T® 54017A1 when the unit is interfaced with the Accunet® T-1.5 Access Protection Capability (APC) service.

The ISX 5300 also operates as a DACS for "groom and fill" functionality. This feature enables maximum utilization of available bandwidth in dynamic network environments. Four separate applications with underutilized bandwidth (e.g., PBX, channel bank, video, and LAN) can be routed to one ISX 5300 family T-1 circuit. This eliminates the need for four fractional T-1 circuits.

Flexible Network Management Options

The Racal Excalibur product line is renowned for its enhanced statistics and diagnostics capabilities available through the Racal proprietary T7 management protocol. Racal has now mapped these same capabilities into an extended MIB, giving you the best of both worlds — superior proprietary management capability in a standard management system. Racal's MIB can be compiled into an SNMP manager to provide full, extended MIB management functionality.

In addition to the unit's superior self-contained management capabilities, a CMS™ 400 Racal Management System provides a custom SNMP application with a new sophisticated GUI (Graphical User Interface). You can use this application to fully configure the ISX 5300, monitor its performance, provide extended network-wide statistics, and integrate traps, without being responsible for each SET and GET command. The CMS 400 does it all for you. With software designed to operate in a Microsoft Windows®, HP OpenView®, or IBM NetView® for AIX environment, CMS makes ISX 5300 configuration and operation quick and intuitive — with extensive online help available should you need assistance.

TELNET Client Support

The ISX 5300 can be accessed from anywhere on the network by any device using the industry-standard TELNET protocol. This capability is particularly valuable for trouble-shooting. A technician can monitor operation and initiate diagnostics. A password routine prevents unauthorized access.

AT&T ASDS Compatibility

The ISX 5300 is compatible with AT&T Publication 62411 for both SF (Super Frame) and ESF (Extended Super Frame) formats. The unit supports all ESF diagnostics per AT&T 54016 and ANSI T1.403, and supports AMI (Alternate Mark Inversion) or B8ZS (Bipolar with Eight Zero Substitution) line codes. Independently selectable, alternate, and contiguous DS0 placement is supported, assuring carrier compatibility.

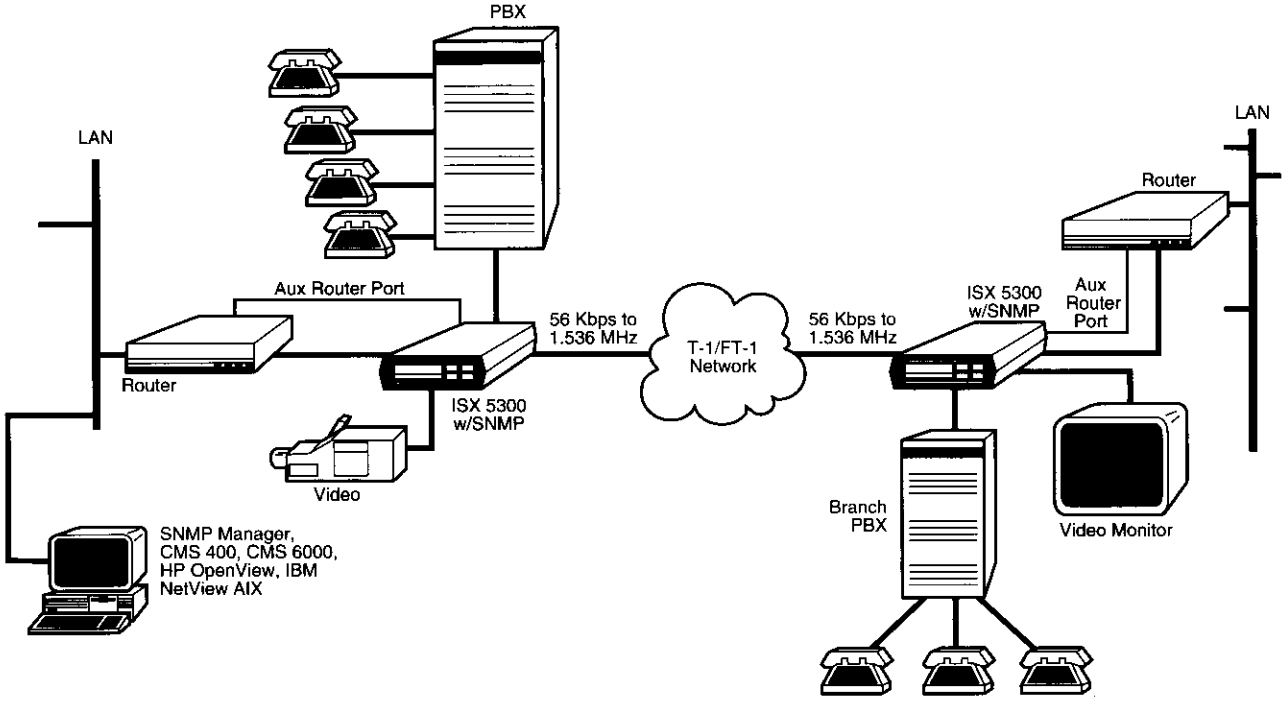
Fast and Easy Fault Isolation

The ISX 5300 provides extensive diagnostic testing capability that helps quickly isolate the source of network malfunctions. Available tests include CSU loopback, local and remote DTE digital loopbacks, and bidirectional local channel and local link loopbacks.

Single, contiguous, or all channels on a T-1 link can be looped. In addition, all channels assigned to two T-1 links in a connection can be looped. The ISX 5300 also provides a built-in QRSS test pattern generator, which eliminates the need for separate BERT test equipment.

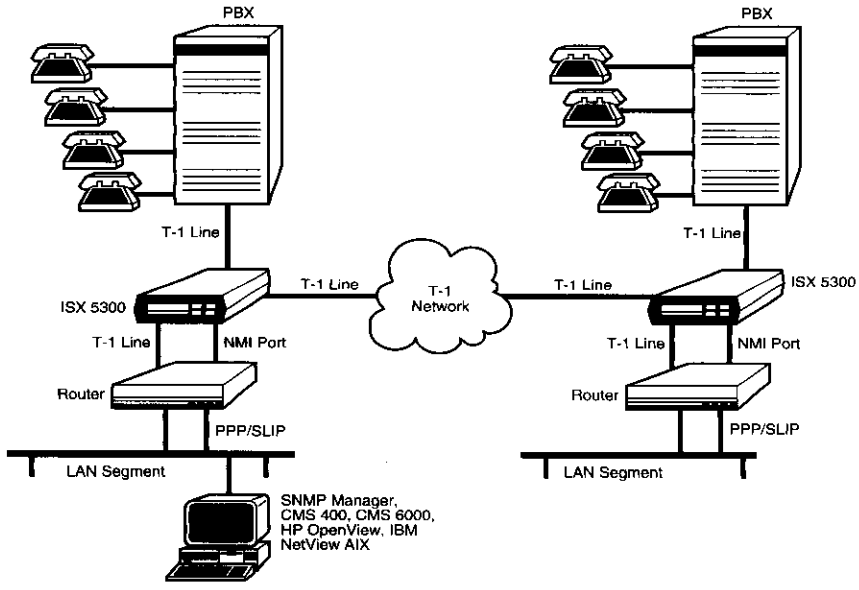
The ISX 5300 features three separate sets of 24-hour registers for each T-1 line: user, Telco, and network. Each set of registers monitors line statistics for the current 15-minute interval and for the last 24 hours.

ESF diagnostic information is available and can be reset from the front panel or the CMS management application. This feature provides T-1 circuit performance monitoring without interrupting normal operation. A variety of alarm conditions are reported and displayed on the front panel or CMS management application. Alarms are also recorded for later inspection, providing efficient problem tracking capabilities.



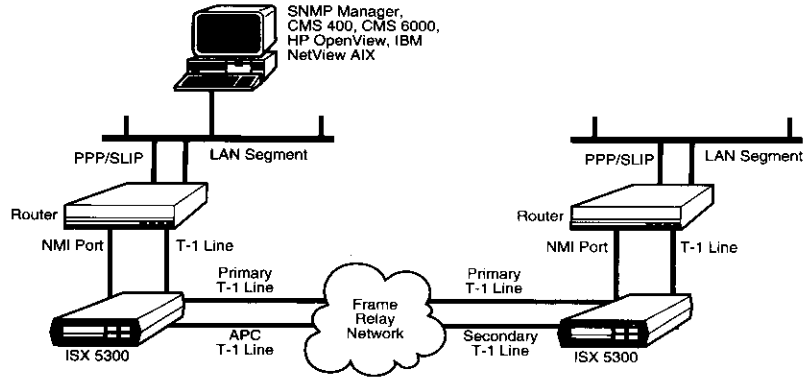
Typical ISX 5300 Application

The ISX 5300 facilitates the connection of routers and other high-speed DTE equipment to Telco T-1 facilities, while providing advanced features and capabilities beyond those found in traditional T-1 CSU/DSUs.



DACS Functionality Application

The second network interface provides a second local interface. As neither the PBX or data application require a full T-1's bandwidth, the ISX 5300 allows both applications to be supported via a single network T-1. This ability enables maximum utilization of available bandwidth, eliminating the need to have separate T-1 circuits to support the PBX voice and data applications.



T-1 Protection Switching Application

Access Protection Capability (APC) — Accunet's T1.5 APC service function provides the automatic transfer between two Accunet T1.5 access facilities when one T-1 line fails

Hot Spare — The ISX 5300 provides the automatic transfer to a spare T-1 line when the primary T-1 line fails, or from the spare line to the primary line when the primary line returns to good state

Technical Specifications

Line Rate	1.544 MHz ± 50 Hz	
Network Interface	Compatibility	AT&T 62411, 54016, 54017A1, ANSI T1.403, and TR-NLP-000054
	Format	Super Frame (SF) or Extended Super Frame (ESF)
	Line Coding	AMI or B8ZS
	Clock Source	Internal, recovered line clock (CSU), external DTE clock, external station clock
	Station Clock Input	RS-449, 75-ohm
	One's Density	B8ZS, AMI (none), AMIB7, AMIZS (zero suppression)
T7 Interface	10-position modular jack, 75 bps - 19.2 Kbps	
SNMP Interface	10-position modular jack, asynchronous PPP/SLIP interface at rates from 75 bps to 19.2 Kbps	
Channel Interface	Compatibility	Two ports, user-selectable RS-232/V.35 or RS-449/RS-530
	Data Rates	N x 56 Kbps and N x 64 Kbps, where N = 1 to 24
	Bundling	Independently selectable, alternate, or contiguous
	Clocks	Transmit and receive bit clocks
Distance	3000 feet with 22-AWG twisted-pair cable. Up to 6000 feet in LDM mode.	
Tests	Line loopback; Payload loopback; PN127 loopback; CSU, DTE, link, and channel loopbacks; link and DTE QRSS pattern tests	
Network Diagnostics	ESF diagnostics, 24-hour registers and 1-second reports per ANSI T1.403 and AT&T 54016	
Approvals	FCC Part 15 and Part 68, Industry Canada, CSA, UL approved	
Physical Specifications	Height	3" (7.6 cm)
	Width	8" (20.3 cm)
	Depth	12" (30.5 cm)

Our policy of continuous development may cause the information and specifications contained herein to change without notice.

Racal Data Group

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