

Intraplex[®] Access Server

ACS-160 and ACS-260 Series



Simplify Your Network and Lower Costs

Intraplex[®] ACS-160 and ACS-260 Series Access Servers provide a single, high-reliability multiplexing platform that enables a wide range of mission-critical voice, data and audio applications for land mobile radio, microwave, transportation and government networking operations. Consequently, network managers can significantly reduce the need to add and manage additional, multivendor access equipment and circuits, while actually increasing performance and uptime.

The Intraplex Access Server features a common architecture and platform that can seamlessly support almost any combination of T1 or E1 transmission requirements over copper- and fiber-based services, as well as licensed microwave or spread spectrum radio links in point-to-point or drop-and-insert configurations. Application modules are available for voice; LAN, synchronous or asynchronous data; and high-fidelity audio. The product design allows application modules, network interface modules and power supplies to be shared and swapped among units for additional flexibility and savings. The Intraplex Access Server is available in a 3RU package (T1 models ACS-163, -165, -166 and E1 models ACS-263, -265, -266) that provides maximum application flexibility or a space-saving 1RU enclosure (T1 models ACS-167, -168, -169 and E1 models ACS-267, -268, -269).

Meeting Application and Industry Requirements

The Intraplex Access Server is in use daily, helping to meet industry and application needs in a variety of settings, including:

- Mobile radio — for transmission of two-way radio traffic between dispatch centers and transmitter sites
- State and municipal microwave networks — for reliable, integrated voice and data interconnect
- High-reliability federal government installations — for transport of specialized voice and data traffic
- LAN connectivity — for LAN extension and bridging
- Specialized audio — for transmission of linear uncompressed, as well as compressed, high-quality audio in a variety of formats including MPEG Layer 2 and 3, enhanced apt-X and J.41

Harris Intraplex professionals are available to provide assistance with network design, planning, application support and training.

Unmatched Performance

The Intraplex Access Server outperforms other multiplexers by incorporating unique transmission techniques that maximize end-to-end circuit availability for real-time application traffic and services. As a result, these products can maintain connectivity even under network conditions and error rates that would cause other equipment to fail.

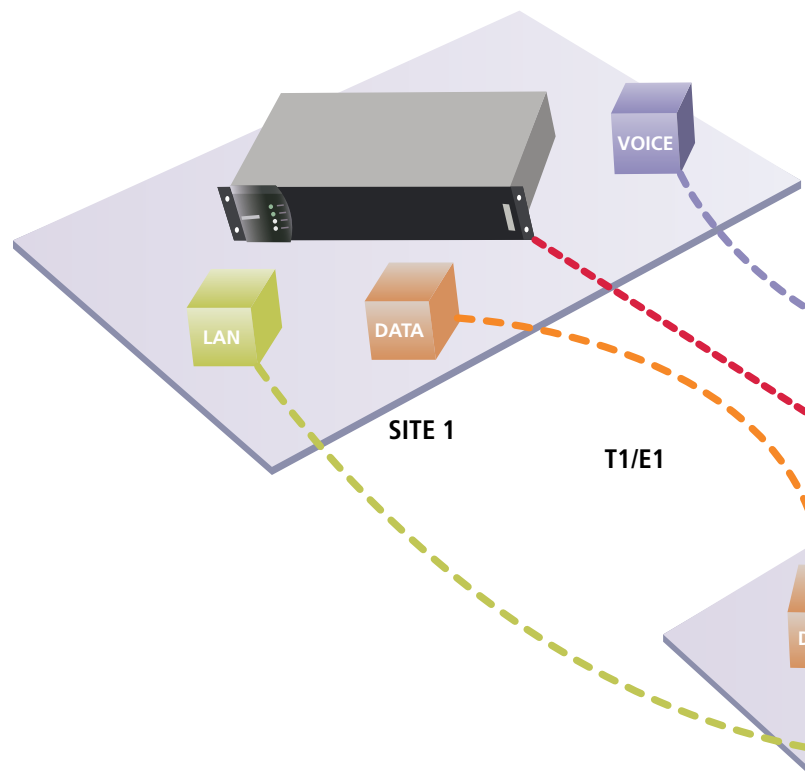
The product can be configured to provide power supply and common equipment hardware redundancy, with automatic switchover when any failure is detected. Complete automatic line protection switching options are also available. The T1 access server includes an integrated Channel Service Unit (CSU) that provides performance monitoring and electrical protection, allowing for direct connection to public networks.

Reduce Network Management Burden

Integrating transmission requirements on the Intraplex Access Server eliminates the need to configure, maintain and manage a proliferation of specialized equipment. The product's Windows®-based graphical user interface and command line interface simplify local or remote configuration, system diagnostics and monitoring of performance and alarm information. Bandwidth can be allocated to the server's built-in network management communications channel for remote monitoring, and a single Intraplex Access Server can be used as a gateway to collect, store, and forward network management information from other Intraplex Access Servers located in one network. Complete SNMP monitoring and control of the Intraplex Access Server is provided using an optional system control module.

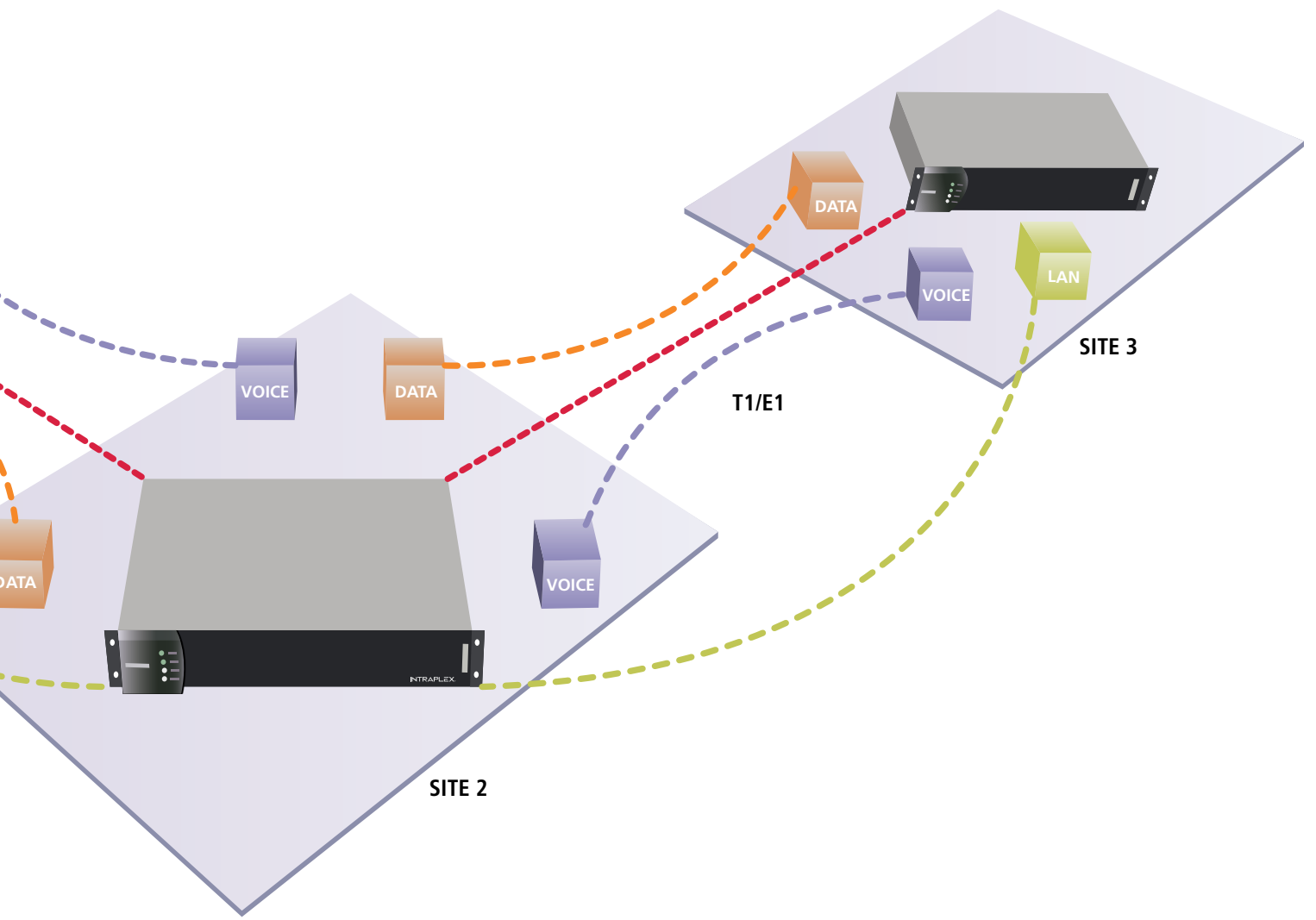
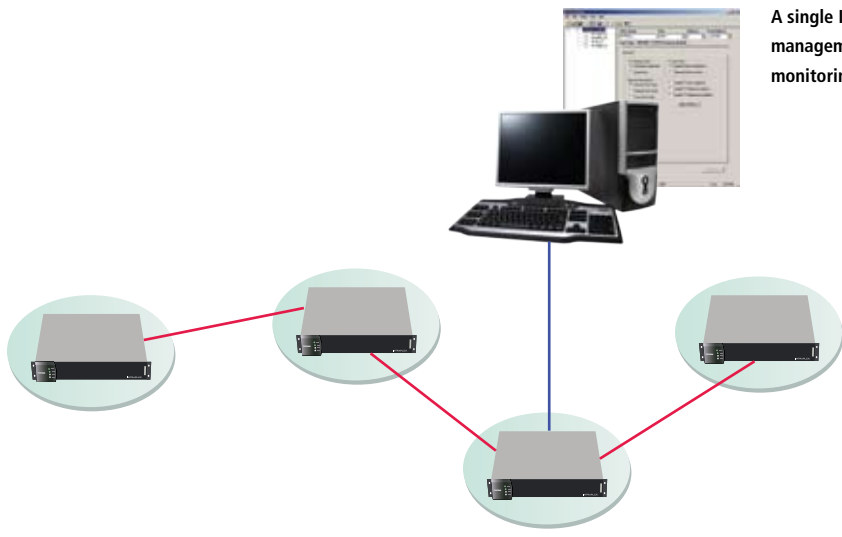
Intraplex Channel Modules

In addition to standard voice and data modules, the Intraplex Access Server also supports specialized cards for transmission of variable rate data, non-standard fixed data rates, baseband encrypted voice signals, and broadcast-quality audio signals. SynchroCast3™ capability can also be added to the Intraplex Access Server to establish robust GPS-based simulcast land mobile radio systems.



Intraplex Access products accept a wide range of plug-in voice, data and audio modules that allow users to create customized combinations of payload channels to meet specific application requirements.

A single Intraplex Access Server can act as a network management gateway, allowing remote control and monitoring of other access servers in the same network.



Specifications

Specifications are subject to change without notice.

Intraplex Access Servers

Access Server ACS-160 Series	3RU	1RU
T1 terminal multiplexer	ACS-163	ACS-167
T1 drop and insert multiplexer	ACS-165	ACS-168
T1 dual terminal multiplexer	ACS-166	ACS-169
Access Server ACS-260 Series	3RU	1RU
E1 terminal multiplexer	ACS-263	ACS-267
E1 drop and insert multiplexer	ACS-265	ACS-268
E1 dual terminal multiplexer	ACS-266	ACS-269

T1 Inputs/Outputs

Connector	RJ-48C, 100 ohms or DB-15, 100 ohms
Frame Formats	Extended superframe (ESF) D4/superframe (SF) Per ANSI T1.403 and AT&T Pubs 62411
Line Codes	Bipolar with 8 zero substitution (B8ZS) alternate mark inversion (AMI)
Timing	Internal, 1.544 Mb/s ±30 ppm output External, RS-422 clock input Loop
Line Build Out (LBO)	Up to 655 ft (199.6 m) from standard DSX or CSU LBO 0, -7.5 or -15 dB
Integral CSU	Does not require external CSU for connection to public network FCC part 68 registered

E1 Inputs/Outputs

Connector	BNC, 75 ohms or DB-15, 120 ohms or RJ-48C, 120 ohms
Frame Formats	Channel associated signaling (CAS) Common channel signaling (CCS) Per ITU G.703, G.704 and G.706
Line Codes	High-density bipolar 3 (HDB3) Alternate mark inversion (AMI)
Timing	Internal, 2.048 Mb/s ±30 ppm External, RS-422 clock input Loop

Status and Diagnostics

LED Indicators	Shelf power, normal, alert, alarm
Contact Closures	Alert, alarm
Loopbacks	Line loopback, equipment loopback, payload loopback
Test Access	Bantam jacks for T1/E1 input/output signal and T1/E1 input/output monitoring
CSU Performance Monitoring (T1)	Compliant with ANSI T1.403 Compliant with AT&T Pub 54016 (standard and enhanced parameters)

Remote Access and Control

User Interface	Remote programming and monitoring using ISICL command-line interface or IntraGuide™ graphical user interface software
Network Management Communications	Remote control and monitoring of access server(s) over the network using fractional DS0 timeslot SNMP monitoring and control via an IP management network using the optional SCMIP system control module
Control Interface	RS-232C and RS-485 asynchronous for user interface Optional 10/100BaseT SNMP interface ANSI T1.403 performance report messages on T1 facility data link AT&T pub 54016 polled performance reports on T1 facility data link

Physical and Environmental

Power Requirements	3RU: universal AC standard Optional 48 V DC or 24 V DC with either positive or negative ground Optional hot-standby redundant supply 1RU: universal AC
Nominal Power Consumption	3RU: fully loaded system less than 40 W typical 1RU: fully loaded system less than 13 W typical
Temperature	32° to 122° F (0° to 50° C) operating
Humidity	10% to 90% non-condensing
Dimensions (H x D x W)	3RU: 5.25 x 14.75 x 19 in. (13.4 x 36.8 x 48.3 cm) 1RU: 1.75 x 14.75 x 19 in. (4.5 x 36.8 x 48.3 cm)
Regulatory Compliance	CE-compliant FCC Part 15, Part 68 UL 1950 CS-03 CTR12, CTR13

For more information, please visit www.broadcast.harris.com/intraplex.

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