

# Emergency Stand Alone Switch

## The Answer for Survivable Networks



### Centralize Voice Switching without Sacrificing Reliability

Carriers that are looking to rationalize operational costs want to centralize voice switching facilities and decommission end office switches (perform a so-called “end office collapse”) without sacrificing reliability or connectivity to emergency 911 services. The Aztek 5000S is a True Emergency Stand Alone (True ESA™) switch that offers an ideal and cost-effective solution to allow the decommissioning of proprietary end office remotes while still maintaining voice reliability.

### True ESA™

The Aztek 5000S is the first and only compact and field cabinet-ready emergency stand alone (ESA) switch that is truly based on open standards and will interoperate with any GR-303-based switch or access system. Furthermore, the 5000S is the only ESA solution that is built with two fully redundant processor cards and supported by a telco-specific high availability operating system. At Aztek Networks, our philosophy is that, when called upon, back-up switching systems absolutely must work. Add to this our patent-pending software suite for ESA and you have the elements that form the basis for what we call True ESA.

### Seamless Implementation and Management

The Aztek 5000S integrates seamlessly into existing TDM access networks either within an end office or in an outside plant environment such as a field cabinet. With 8 subscriber-side T1 interfaces, the 5000S is capable of maintaining switching for multiple DLCs or BLCs from different vendors and tying them together into one calling community in the event of a line-cut or host switch failure. In active ESA mode, all 911 calls are routed to pre-designated emergency responders such as local police, ambulance service or fire department. The Aztek 5000S can be managed and receive automatic switch database updates via the optional Aztek Intelligent Management System (AIMS). The AIMS system allows operators to manage and view the status of all of the Aztek 5000Ss in their network from a single web interface, including assigning 911 designees for each community and managing automated subscriber database updates.

### Future Proof – The IP Ports are Already There!

The Aztek 5000S provides real solutions for today's network needs and is a flexible system that can easily change as the network evolves. The 5000S can be software upgraded to the 5000GS in order to provide IP media gateway functionality in addition to True ESA service. This allows the service provider to maintain legacy TDM access devices while providing an IP uplink to a next generation switch.

## AZTEK 5000S Features:

- Patent-pending True ESA™ switching is a backup switch in the event of a line-cut or host switch failure.
- True ESA enables intra-community dialing and access to local emergency 911 services.
- Dual processor, fully redundant control cards and high availability software ensure ESA service is available when needed.
- Interoperates with all GR-303-based switch and access equipment.
- Can link multiple DLCs or BLCs from different vendors into a single ESA community.
- Compact design and environmentally hardened so that it can easily be deployed in a field cabinet.
- Ideal solution for replacement or decommissioning of proprietary Class 5 remote switch units.
- IP ready: easy upgrade to gateway capability to provide IP (SIP or H.248) uplink to softswitch.



### System Features

- True ESA Services for DLCs or BLCs with GR-303
- Continuously monitors for catastrophic failure of CO facilities
- Provides local service for DLCs or BLCs during facilities failure
- Call progress tones, ringing and subscriber connections during facilities failures
- Optional stutter dial tone and distinctive ringing in ESA mode
- Provides 911 connections to pre-designated 911 subscriber group
- Pre-designated 911 positions receive Caller ID in ESA mode
- Pre-designated 911 positions have call connection control during ESA mode
- Pre-designated 911 positions receive recorded announcement calls when entering and leaving ESA mode
- Call Detail Recording (CDR) during ESA events
- Field upgradeable software
- Automatic network clock (Stratum 4) synchronization
- Continuous background system audits
- Optional automatic updates to internal dialing plan database

### Switch and DLC Interface Standards

- 16 T1s (8 network side and 8 subscriber side)
- GR-303-CORE
- ANSI T1.403
- GR-499-CORE
- GR-1244-CORE

### Environmental / Physical

- Dimensions: 1.75 in. (1U) x 17.4 in. x 12 in. (HWD)
- Ambient operating temperature: -40 to +65° C
- Operating relative humidity: up to 85% (non-condensing)
- GR-487 compliant (for outdoor cabinet)
- Designed for outside plant deployment
- Boards hot-swappable
- Field-replaceable fans & filter

### Power

- Dual redundant power feeds. Reverse polarity protected
- DC: -42.75 V to -60.0 V, 37 Watts (with redundant CT boards)
- GR-513-CORE
- ANSI T1.315-2001
- Power quality and temperature monitoring

### Safety and Regulatory

- NEBS level-3 (GR-63-CORE, GR-1089-CORE)
- Safety Compliance: UL 60950 (CSA 950) 3rd edition
- Emissions Compliance: FCC, 47 CFR Part 15, Subpart B, Class A
- Immunity Compliance: NEBS GR-1089 level 3, T1.601-1992
- Compliant to RUS CFR 419 § 1755.522

### Management

- Web Browser-based GUI
- Command Line Interface (CLI)
- Persistent provisioning
- Optional automatic database management
- Recording of system events in three accessible logs
- Alarm Contact Closures: 2 in and 3 out
- RS-232 or 10/100 Base T Management Interfaces

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