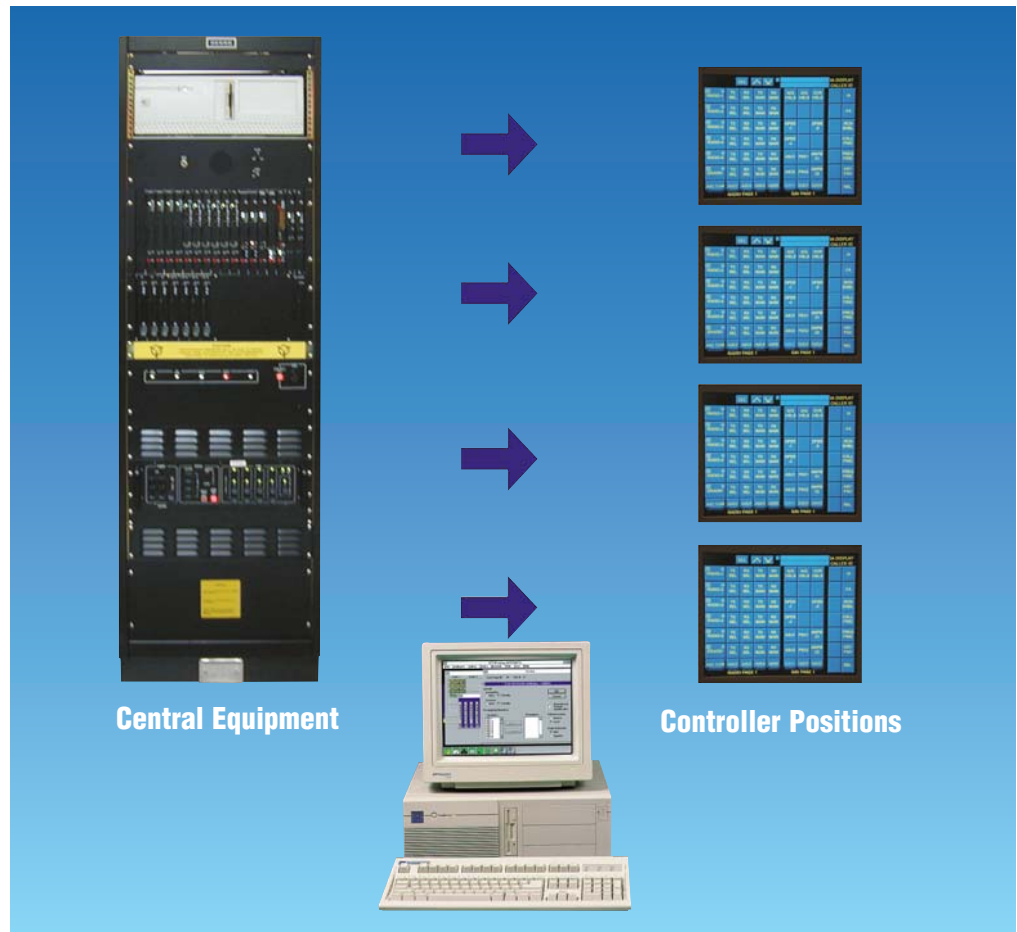


## Small Digital Voice Switch (SDVS)



The Small Digital Voice Switch (SDVS) is our next generation small switching system targeted to the small tower, facility or mobile ATC environment. The SDVS is identical in user operation to the approved Federal Aviation Administration (FAA) version Enhanced Terminal Voice Switch (ETVS). The new switch integrates the compact and reliable features of the proven Small Tower Voice Switch (STVS) product with the state-of-the-art digital design and touch entry operation of the ETVS.

A standard configuration has been established for the SDVS patterned after our successful STVS product. A compact single rack houses the operator, radio and telephone interfaces. Our touch entry position equipment can be

located locally or extended remotely with external position power. The system is scalable, enabling expansion from 1 to 12 operators, up to 12 radio interfaces and as many as 60 telephone interfaces.

The SDVS is a fully integrated, distributed microprocessor controlled, Time Division Multiplexed (TDM) Voice Communications System (VCS) with extensive redundancy features and built-in-diagnostics. This system provides superior voice quality, non-blocking access to all audio channels and a Windows-base System Control Terminal (SCT). The user friendly SCT allows for easy reconfiguration, expansion and maintenance.

## Small Digital Voice Switch (SDVS)

### PRODUCT SPECIFICATIONS

Systems Functions:	Integrated intercom, telephone, and radio communications
Systems Availability:	>0.99995 (Fully distributed processing and redundant critical elements so no single failure can affect the entire system.)
System Architecture:	TDM method using PCM digitized voice switching
Call Setup:	200 ms maximum
PTT Keying:	<50 ms
Programmable Buttons:	66 DA keys and 30 radio keys per each Touch Entry Display (TED)
Recorder Output:	All position, telephone, and radio interfaces are 600 ohms
Frequency Response:	300-3000 Hz, -0.5 dB to +1.0 dB
Impulse Noise:	≤1 hit above 47 dBrnCO in a 30 minute period
Background Noise:	≤20 dBrnCO at any output
Crosstalk Isolation:	Between 68 dB and 102 dB
Headset Volume Limiter:	>20 dBm to -20 dBm ±1 dB in 10 ms or less
Harmonic Distortion:	≤2.2%
Voice Level Regulation (AGC):	-18 to +3 dBm0 in to -10 dBm0 out
Radio Channel PTT:	Dry contact, ground, 48V, 24V
DTMF Signaling:	Per EIA/TIA-464A-1
Digital Interface:	ISDN BRI, PRI, ATS QSIG
Analog Telephone Interfaces:	PSTN, PBX, Analog with loop start and ground start, Manual ringdown, Voice in/Voice out, SS-1/SS-4, ASU, LDL, 4-wire E+M, MFC R2, IVA-14
System Power:	176-276 Vac, 47-64 Hz, single phase via system power supplies producing 27.5 Vdc at 125 A each
Battery Back Up:	20 minutes minimum
Temperature:	10 - 40°C (50 - 104°F)
Relative Humidity:	10-80% non-condensing
Altitude:	Up to 10,000 feet (3048 meters)
Maximum Luminance:	Up to 1020 nits
Mechanical:	Standard, Mobile, and Ruggedized mounting available
Standards:	FCC part 15 and 68, CE Mark, UL 1459, Y2K Complaint

Abbreviated Dialing  
 Advanced Auto Routing  
 ATIS Operation  
 Best Signal Selection (Voting)  
 Built-In Test Equipment (BITE)  
 Call Forward  
 Call Hold  
 Call Queuing  
 Call Release  
 Call Transfer  
 Chime Cut-off  
 Climax Operation  
 Conferencing
 

- Pre-Set
- Progressive

 Crash Phone Function  
 Direct Access  
 Display of Radio Frequencies  
 Dual Jackbox (Instructor/Trainee)  
 Facility Door Release  
 Frequency Add/Delete  
 Frequency Cross Coupling  
 Frequency Forward  
 Indirect Access  
 Intercom  
 Independent Tx and Rx Selection  
 Last Number Redial  
 LDL to LDL Dialing  
 Lightning Protection for External Circuits  
 Line Hunting in Trunks  
 Main/Standby Radio Selection  
 Maintenance Panel/Position  
 Maintenance PC Terminal
 

- Alarm Reporting
- Equipment Status Monitoring
- Remote Maintenance Monitoring

 Override (Barge-in)  
 Password Protection  
 Position Self-Test/Diagnostics  
 Position Monitoring  
 Public Address Function  
 Push-To-Talk (PTT) Operation
 

- Lockout
- Priority Preemption

 Radio Retransmission  
 Radio/Telephone Patching  
 Receiver Muting  
 Recording
 

- Operator Position
- Radio Interfaces
- Telephone Interfaces

 Relief Briefing  
 Remote Operator  
 Remote Radio Access  
 Reconfigure Enable  
 Reconfiguration PC Terminal  
 Selcal Radio Interface  
 Sidetone Volume Control  
 Squelch Break Indication  
 Speed Dial  
 Split Position Operation  
 Supervisory Record Function  
 Traffic Data Collection  
 Uninterruptible Power Supply (UPS)  
 System  
 VOX Detection

For more information, please contact:

Northrop Grumman Corporation  
 Denro Systems  
 9318 Gaither Road  
 Gaithersburg, Maryland, 20877 USA  
 Phone: 1-301-840-1597  
 Fax: 1-301-216-1987  
 E-mail: [marketing.denro.systems@northropgrumman.com](mailto:marketing.denro.systems@northropgrumman.com)  
 Web site: <http://www.es.northropgrumman.com>