



Digital Video Storage Unit



GDVSU

The GDVSU is a professional network video server from Geoffrey, designed to meet the demands of 24-hour video surveillance using new or existing IP-enabled computer networks.

The video servers provide a cost-effective means to record and distribute video from your CCTV cameras to any computer on the network, anytime, anywhere. Typical applications include corporate buildings, casinos, shopping centers, universities and hotels.

The GDVSU records high quality images locally in M-JPEG format, ensuring recording continues in the event of network failure, simultaneous data streaming in MPEG-4, allows transmission over low bandwidth connections.

The GDVSU also features false alarm management, tamper-proof alarm-handling, secondary signalling, fault tolerance and comprehensive logs in full compliance with BS-8418 2, critical for central monitoring station applications.

Benefits of Using GDVSU

- 6 OR 16 CAMERA INPUTS
- HIGH QUALITY JPEG RECORDING AND MPEG-4 COMPRESSION FOR LOW BANDWIDTH PLAYBACK/LIVE VIEWING
- AUTOMATIC CONNECTION TO REMOTE VIDEO RECEIVING CENTER ON ALARM
- HIGH RESOLUTION VMD, 16 ZONES SELECTABLE PER CAMERA
- BUILT-IN WEB SERVER
- ALARM INPUTS CONFIGURABLE FOR TAMPER OR NO/NC OPERATION
- RELAY OUTPUTS, AUTOMATIC OR MANUAL OPERATION
- TRANSMISSION OVER ETHERNET, DSL, CABLE, ISDN AND PSTN*
- DESIGNED FOR CENTRAL MONITORING APPLICATIONS (BS-84182 COMPATIBLE)
- HYBRID SYSTEM - WILL NOT STOP RECORDING EVEN IN EVENT OF NETWORK FAILURE
- UNINTERRUPTED RECORDING, DURING PLAYBACK, BACKGROUND IMAGE ARCHIVING, MULTIPLE USER VIEWING
- COAX AND SERIAL TELEMETRY SUPPORT
- FULL DUPLEX AUDIO WITH RECORDING
- AUTOMATIC IP ADDRESS DESIGNATION WITH DHCP
- BANDWIDTH LIMITATION FOR ETHERNET/DIAL-UP NETWORKS
- 24/7 SCHEDULING, 10 HOLIDAY PROFILES
- SDK AVAILABLE FOR PROJECT CUSTOMIZATION

*VIA SUITABLE MEDIA INTERFACE – E.G. ROUTER

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The GDVSU features 6 or 16 camera options capable of recording up to 120pps NTSC/100pps PAL. GDVSU is based around an embedded real-time operating system, providing a reliable and cost-effective way of digitizing, recording and distributing high quality video across a network or internet to a viewer's PC.

NETWORK CONTROL

Control of GDVSU is achieved over Ethernet either by proprietary software or via a standard web browser. Pre-loaded web pages allow for setup, configuration, image archiving, live viewing, telemetry and playback.

For ease of configuration GDVSU will interface with a DHCP(Dynamic Host Configuration Protocol) server to automatically assign an IP address and other relevant IP settings. GDVSU also supports manual IP address assignment. 'Bandwidth Restriction' ensures image transmission only uses allocated bandwidth.

RECORDING

DuoView™ screen allows live and replay footage to be viewed and compared at the same time without interrupting recording.

LOW BIT RATE VIDEO

MPEG-4 is a video compression standard which provides a means to distribute live/recorded video over low bandwidth or bandwidth constrained networks efficiently. This functionality is independent of the recording process. High quality M-JPEG images may be downloaded separately if required for evidential or archiving purposes.

ALARMS

16 (selectable tamper or NO/NC) and 1 (NO/NC) alarm inputs allow for the integration of PIR, panic buttons, door contacts, etc. into the CCTV system. Using the alarms in tamper mode allows the type of alarm to be determined e.g. tamper, warning low resistance, warning high resistance, etc.

Six light duty relay outputs are also provided offering further flexibility in executing remote tasks such as remotely switching on lights, opening doors and barriers. Relay outputs can also be configured as part of an alarm response and executed the split second the alarm is tripped. Unlocking GDVSU viewer provides alarm receiving functionality (RVRC) where notification of alarms can be over Ethernet, PSTN or ISDN ensuring incidents are never missed. GDVSU supports a total of 33 alarm inputs when using a remote alarm module(CI01) and allows a maximum of 38 relay outputs via relay output modules (CI02).

TELEMETRY

On screen telemetry control is supported over coax and serial offering support for Dennard, BBV, Pelco, Panasonic, Kalatel, Phillips, VCL/Ademco, American Dynamics cameras and domes.

Priority control ensures that operators do not get into a 'tug of war' scenario when operating PTZ cameras. Telemetry control is locked out for other users until a timeout has expired, ensuring an operator can position a camera without interference.

SECURITY

GDVSU features a built-in firewall for intrusion detection and protection. Network PING responses can be disabled, it is no longer possible to stumble across the server, by 'Pinging' address ranges. Coupled with trusted IP addresses and the ability to open specific TCP and UDP ports the GDVSU is configurable for use on any network large or small. GDVSU can be configured to emulate a remote keyboard offering control of third party matrix connected telemetry cameras. Supported matrices include Ademco/VCL, American Dynamics, BBV TX 1000/1500, and DM star commands.

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Specifications

CAMERAS

- 6 or 16
- 1V Pk-Pk Video Input
- NTSC, PAL
- Color, Mono mix
- Looping inputs
- 75Ω Camera Termination provided in software
- Note: does not support IP cameras

COMPRESSION

- JPEG (Video)
- MPEG-4 (Video)
- ADPCM (Audio)
- User definable image file sizes

RESOLUTION

- Sample rate 13.5MHz to CCIR 601
- M-JPEG NTSC – 640x240, 720x240, 640x480, 720x480
- PAL – 640x256, 720x256, 768x288, 640x576, 768x576
- MPEG-4 NTSC – QSIF, SIF, 2SIF
- PAL – QCIF, CIF, 2CIF
- Configurable bit rate from 64kb/s – 1Mb/s

RECORDING

- 120PPS NTSC
- 100PPS PAL
- Variable record rate selectable per camera
- Simultaneous recording, viewing, playback
- Time/date stamping of all images
- Event recording
- Looped recording

AUDIO (MONURAL)

- 2 x Audio Inputs - Phono
- Full bi-directional audio with recording on each input software selectable
- 8Khz Sampled
- 47KΩ input impedance
- 1 x Audio Output - Phono
- 47KΩ output impedance

NETWORK SUPPORT

- RJ45 Connector
- 10/100 BaseT Auto Negotiation (or forced 10BaseT)
- Network Protocols Supported; IP, TCP, UDP, DHCP, FTP, TELNET, ICMP, HTTP, ARP
- Configurable port numbers for HTTP
- Built-in firewall for intrusion detection and protection

SERIAL PORTS

- 4 x Serial Ports – comprising: 2 x Full RS232 9 wires (RS485, RS422) 2 x RS232, RS485, RS422
- Dip switch selectable termination for DM485 Bus, Com 3 and Com SERIAL PORT OPERATIONAL MODES
- PPP, Telemetry, Matrix Control, Debug, ASCII Text

TELEMETRY

- Coax
- BBV
- Pelco
- Serial
- Dennard - RS485
- Panasonic - RS485
- VCL - RS485
- Kalatel - RS485
- American Dynamics - RS422
- Philips - RS232 - Biphase
- Pelco 'P' - RS422

INTERNAL HARD DISK STORAGE

- 80GB - 600GB maximum (Please contact Customer Service or check the website for latest information)

EXTERNAL STORAGE

- SCSI II (7 devices MAX 14TB)
- DM JBOD Support
- DM RAID Support

MATRIX CONTROL

- Ademco VCL – RS232
- American Dynamics – RS232
- BBV Serial telemetry – RS485
- DM Star Commands – RS232

ALARM CONTACTS

- 17 x Alarm Inputs Total
- 1 x Aux Input (NO/NC only)
- 16 x General Alarm Inputs (tamper or NO/NC selectable)
- Normally Open/Normally Closed software selectable
- Tamper selectable

ALARM SUPPORT Including BS84182

- Tamper (Resistance)
 - 0 - 800Ω Tamper (Short circuit)
 - 800 - 900Ω Warning - low resistance
 - 900 - 1.2kΩ Normal (closed)
 - 1.2 - 1.3 kΩ Warning - high resistance
 - 1.3 - 12 kΩ Alarm (open)
 - above 12 kΩ Tamper (Open circuit)
- Voltage Free
- Closed contact operation
- VMD Trigger
- Camera Fail Trigger

- Note: Please consult Geoffrey for configuration instructions.

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Specifications (continued)

BS-8418 SUPPORT2

- Tamper proof alarm inputs
- Nuisance detector management
- Application watch dog
- Comprehensive system logs
- Secondary signaling support via relay contact
- Relay system set/unset notification
- Entry/Exit routes for alarm inputs

RELAYS

- 6 onboard light duty relay output (500mA @ 12V-48V Max)

Default settings:

- Relay1 – Global alarm/user definable
- Relay2 – Global VMD/ user definable
- Relay3 – Global camera fail/user definable
- Relay4 – Set/Unset notification (BS8418 support2)
- Relay5 – Primary signaling failure (BS8418 support2)
- Relay6 – User definable

VIDEO MOTION DETECTION

- 80x64 pixel VMD detection resolution
- Programmable VMD grid with 16 individually definable zones per camera
- 3 different modes: Static, Last Trigger, Normal
- User-definable sensitivity for each zone
- Pre and post activity recording, definable by user
- Change camera recording rates on activity
- Notify user of activity over Ethernet, ISDN and PSTN
- Stores all VMD instances in Events database
- VMD images can be protected on HDD
- Global VMD relay
- Linkable to alarm zone

IMAGE PROTECTION/UNPROTECTION

- All images tagged as an alarm will be automatically protected
- Non alarmed video footage may be user selected using time/date, from/to for image protection.
- Protected images may be manually unprotected

DIGITAL SIGNATURE

- Automatic MD5 Finger Printing on FTP download and on demand via software GUI

ARCHIVING

- All archiving is achieved via FTP on Scheduled Manual request (time/date from/to)

SCHEDULE

- 7 day schedule
- 10 definable holiday schedules

AUTHENTICATION

- Configurable password over network for:
Viewing
Playback
Configuration
Telnet
FTP
Serial port configuration

ADDITIONAL EXPANSION

- 2 x DM Bus (RS485)
- 1 x CIO1 (Alarms – expanding to max 34)
- 2 x CIO2 (Relays – expanding to max 38)

MULTILINGUAL SUPPORT

- English • Spanish
- French • Italian
- Dutch • Portuguese
- German • Arabic

SUPPORT APPLICATIONS

- GDVSU Viewer
- VCR Playback Utility
- Watermarking Utility
- Database Editor
- Backup Utility

BROWSER SUPPORT

- IE 5.5 and Above
- Netscape 4.7 and above

DEVELOPERS SUPPORT

- Java (Via the DM JDK – Java Developers Kit)

TEMPERATURE RANGE

- Operating Temp – 41 – 113°F (5 to 45°C)

RELATIVE HUMIDITY

- 5% to 85% Non condensing

DIMENSIONS

- Rack Mount – H2 5/8” x W17 5/16” x D16 1/8”
H65mm x W440mm x D410mm

WEIGHT

- Rack Mount –15lbs (6.8kg) without PSU
17.6lbs (8kg) with PSU

PSU

- Input Voltage – 110VAC to 230VAC 50/60Hz
- Output Voltage – +5, +12, -12 VDC

COLOR – CASE

- Black