

# The i-Volution™ Video Surveillance Gateway

The i-Volution Video Surveillance Gateway (VSG) is a modular, chassis-based concentrator providing multi-channel transport capability for advanced surveillance applications requiring high resolution, full motion video. The VSG can encode and/or decode up to 24 MPEG-1/MPEG-2 video streams and 24 serial data channels over standards-based IP networks. The MPEG video streams can be viewed simultaneously from any PC and/or CCTV monitor in the network. The VSG supports MPEG dual port video encoder and dual port video decoder cards.



VSG  
Video Surveillance Gateway



VSG-L  
Video Surveillance Gateway Lite

## Applications

- Security Surveillance
  - Airports
  - Military
  - Industrial Complexes
  - Hospitals
  - Campuses
  - Detention Centers
- Transportation Monitoring
  - Road (ITS)
  - Rail / Light Rail
  - Subway / Metro
- Industrial Process Control

### High Resolution - Full Motion Video

iMPath Networks VSG provides the highest digitized video quality over standard IP Ethernet networks. Every image is encoded in real-time and displayed at 30/25 (NTSC/PAL) frames per second. This advanced capability provides full motion DVD quality video for digital networked CCTV surveillance applications.

### Multi-channel Capacity

The VSG represents one of the highest density MPEG concentrator systems in the industry. Within a compact 7RU (12 slot) chassis, up to 24 video and serial data channels can be digitized & compressed using MPEG-1 or MPEG-2 for transport over a standards-based IP network.

The VSG-L is a scaleable, midsize concentrator for applications requiring lower channel capacity. It's 2RU (3 slot) chassis can transport up to (6) MPEG-1 or MPEG-2 video channels (with serial data) over an IP network.

Both VSG variants can be provisioned with MPEG decoder and/or encoder cards.

### Network Reliability

The VSG & VSG-L are designed to meet high availability network requirements. Each chassis supports redundant power & hot-swappable MPEG cards that operate independently of one another. With no single points of failure, the VSG is ideal for mission critical applications.

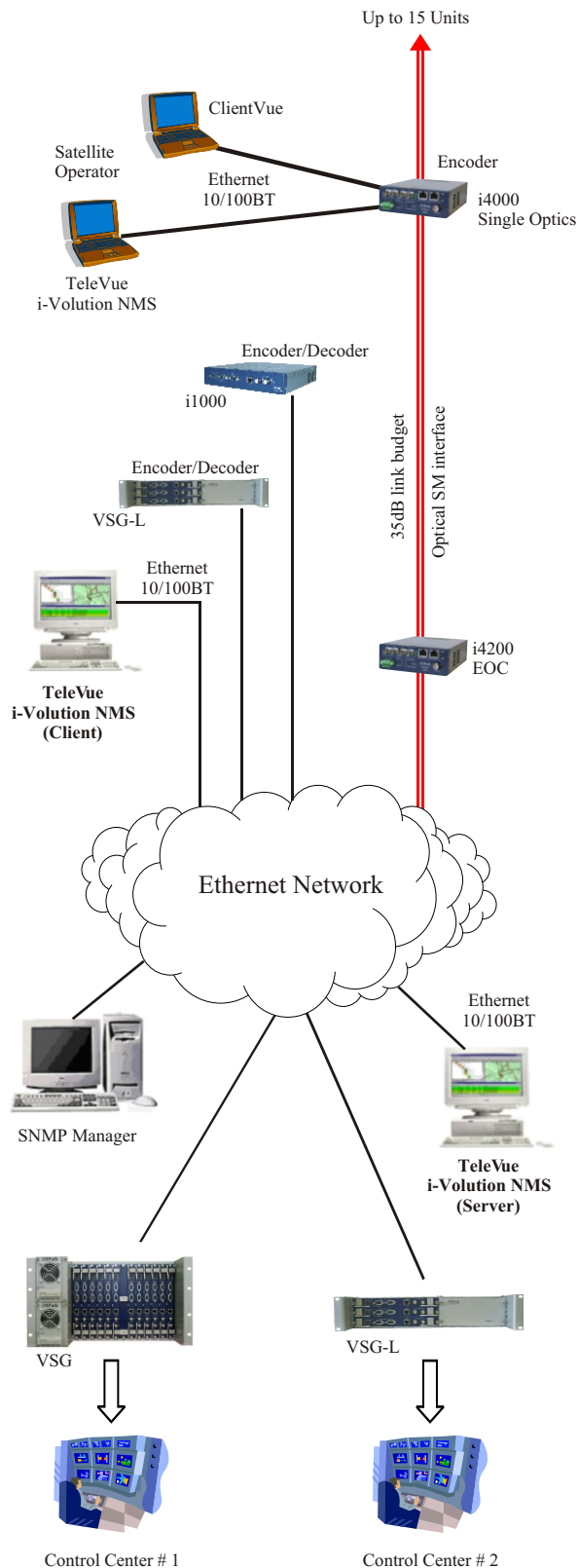
### Standards Compliant

Video is encoded using standard MPEG-1 or MPEG-2 compression. The video stream/s can be viewed by iMPath software/hardware decoders and/or 3<sup>rd</sup> Party products supporting "Elementary Stream" & "Raw Dump" standards.

The video and serial data can be transmitted over any standard IP network. This includes Ethernet, Gigabit Ethernet, SONET/SDH and ATM networks.

### Network Manageability

The VSG can be managed both locally and remotely using Telnet, i-Volution NMS or via 3<sup>rd</sup> Party SNMP network management systems.



## VSG MPEG Encoder / Decoder:

### Video

<b>Analog Video Channels / Connector</b>	NTSC (30 fps), PAL (25 fps) (2) / BNC, 75 ohms
<b>Digital Video Data Rate</b>	MPEG-1 (ISO/IEC 11172-2) and MPEG-2 (ISO 13818-2) MP@ML 128 Kbps - 12 Mbps (12 Mbps aggregate stream(s))
<b>Resolution</b>	<b>NTSC</b> <b>PAL</b> Full      720 x 480      720 x 576 HHR      352 x 480      352 x 576 SIF      352 x 240      352 x 288 QSIF      192 x 128      160 x 128
<b>Latency</b>	170ms with Optimal Setting

### Data

<b>Format</b>	Serial / Asynchronous
<b>Channels / Connectors</b>	(2) / DB9-F
<b>Interface</b>	EIA-232, EIA-422/485 - 2 or 4 Wire, Half or Full Duplex
<b>Data Rate</b>	1.2 Kbps to 115.2 Kbps

### LAN

<b>LAN Format</b>	IEEE 802.3 Ethernet
<b>Channels / Connector</b>	(1) / RJ45
<b>Interface</b>	10/100 Base-T Ethernet, Half/Full Duplex, Auto-Sensing
<b>Data Rate</b>	10/100 Mbps
<b>Protocol</b>	TCP, UDP, IPv4, IGMPv2, SNMPv2

### Motion Detection

<b>Zone</b>	Full Screen
<b>Sensitivity</b>	User Selectable: Low to High (1 to 10)
<b>Re-Arm Delay</b>	User Selectable: 100ms to 25 seconds

### Alarms

<b>Via NMS/SNMP</b>	Video Loss Detection Video Motion Detection Contact Sense & Closure (Product Specific) Unit Configuration Change and Reset
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### Management

<b>Local Management</b>	Via Serial (Console) Maintenance Port, LED Status Display
<b>Remote Management</b>	Via i-Volution NMS (TeleVue), Telnet, SNMPv2
<b>Software Updates</b>	Via Network Download or Serial Maintenance Port

### VSG Chassis:

	<b>VSG</b>	<b>VSG-L</b>	<b>Notes</b>
<b>Chassis Card Slots</b>	12	3	
<b>Video Channels</b>	2-24	2-6	
<b>Data Channels</b>	2-24	2-6	
<b>LAN Interfaces</b>	1-12	1-3	
<b>Power Modules</b>	1-2	1-2	Redundant Power is Optional
<b>Hot insertion</b>	Yes	Yes	Encoder/Decoder/Power Modules
<b>Rack Mount</b>	Yes	Yes	

### Power

90 to 263 VAC	85 to 264 VAC
47 to 440 Hz	47 to 63 Hz
350 W	60 W

### Physical

<b>Height</b>	12.3" (31 cm)	3.5" (8.9 cm)
<b>Width</b>	19" (48 cm)	19" (48 cm)
<b>Depth</b>	13" (33 cm)	16" (40.6 cm)

### Environmental

<b>Temperature</b>	-10°C to +50°C
<b>Relative Humidity</b>	5% to 95%, non-condensing
<b>Environmental Protection</b>	PCB Conformal Coating

### Regulatory Approvals

<b>Safety</b>	EN 60950, AS/NZS 3548, U11950 (VSG) / EN 60950, U11419 (VSG-L)
<b>Emissions:</b>	
Europe	EN55022: 1998 For Class A, EN61000-3-2: 1995 & EN6100-3-3: 1995
North America	FCC47 CFR Part 15, Subpart B: 1999 Class A
Australia/New Zealand	AS/NZS 3548: 1995 for Class A
	EN55024

### Immunity



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