

the i-Volution™ VSG 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, data and audio support. The VSG can encode and/or decode up to 24 MPEG-1/MPEG-2 video streams, 24 serial data channels and 12 audio channels over a standards-based IP network.

The VSG is available in two variants, each capable of supporting Impath's video, data and audio concentrator modules. The i4100 is available as a stand-alone single port video encoder.



VSG
Video Surveillance Gateway



VSG-L
Video Surveillance Gateway

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 i-Volution series of codecs provide 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 / 24 serial data / 12 audio channels can be digitized & compressed using MPEG-1 or MPEG-2 for transport over a standards-based IP network. When used in combination with the i-Volution 1400 QuadriMedia encoder, the VSG can decode up to 96 simultaneous video streams.

The VSG-L is a scaleable, mid-size 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 and audio over an IP network. When used in combination with i-Volution 1400 Quadrimedia encoder, this VSG-L can decode up to 24 simultaneous video streams.

Both chassis variants can be provisioned with any combination of VSG concentrator modules.

Enhanced IP Multicast Capability - Video, Data & Audio

i-Volution simplifies network connectivity via standards-based multicast technology for streaming video, data and audio within an IP network. IP Multicasting provides the ability to distribute information efficiently to an unlimited number of remote locations via a single communications interface at the central site. This flexibility reduces hardware and bandwidth requirements while optimizing the overall network.

Network Reliability

The VSG & VSG-L are designed to meet high availability network requirements. Each chassis supports redundant power & hot-swappable modules 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 and decoded using standard MPEG-1 or MPEG-2 compression. Audio is encoded via MPEG-1 Layer 3 (MP3) and decoded via MPEG-1 Layer 2 or 3. The video stream/s can be viewed by Impath software/hardware decoders and/or 3rd Party products.

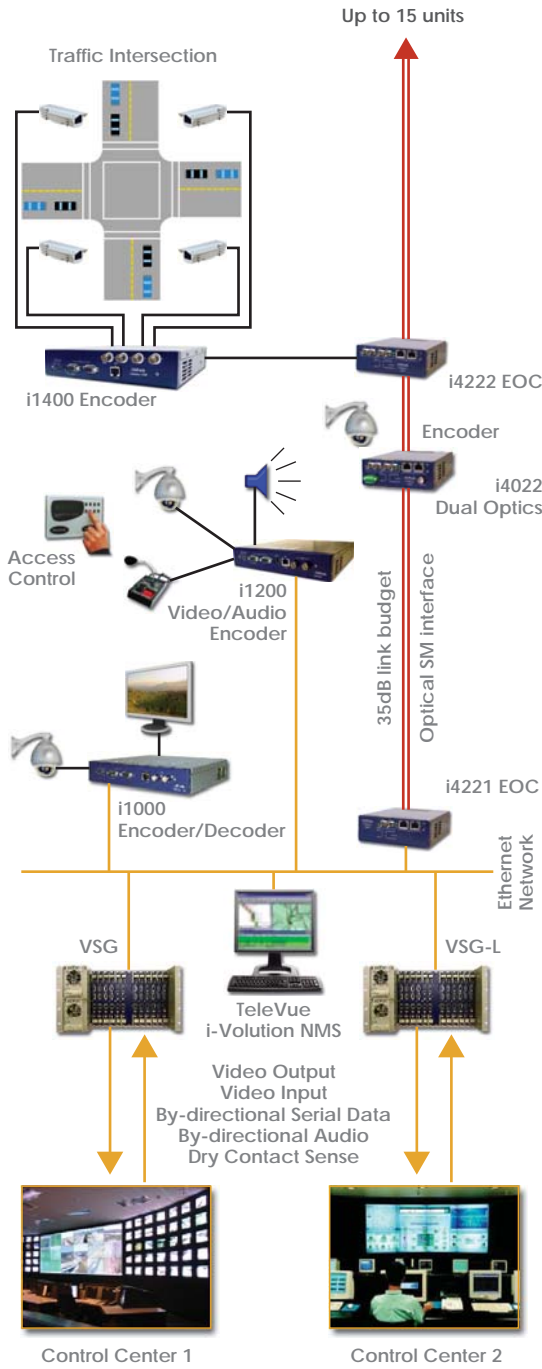
The video, audio and serial data can be transmitted over any standard IP network. This includes Ethernet, Gigabit Ethernet, SONET/SDH and ATM networks.

Network Manageability

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

the i-Volution™ VSG

VIDEO SURVEILLANCE GATEWAY



VSG Chassis

	VSG	VSG-L	Notes
Chassis Card Slots	12	3	
Video Channels	Up to 24	Up to 6	Module dependant
Data Channels	Up to 24	Up to 6	Module dependant
Audio Interface	Up to 12	Up to 3	Module dependant
LAN Interfaces	1 - 12	1 - 3	
Power Modules	1 - 2	1 - 2	Redundant Power is Optional
Hot insertion	Yes	Yes	Encoder/Decoder/Power Modules
Rack Mount (19")	Yes	Yes	

Management

Concentrator Management	None	None	
<i>Each VSG modules offers independent management capabilities</i>			

Power

Input Voltage	90 to 264 VAC	85 to 264 VAC
Frequency	47 to 63 Hz	47 to 63 Hz
Consumption	350 W	60 W
Optional	Dual AC input	Dual AC input

Physical

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

Environmental

Temperature	-10°C to +50°C
Relative Humidity	5% to 95%, Non-Condensing
Environmental Protection	PCB Conformal Coating

Regulatory Approvals

Safety	EN 60950, AS/NZS 3548, UI1950 (VSG) / EN 60950, UI1419 (VSG-L)
Emissions	
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
Immunity	EN55024

The following concentrator modules are available for the VSG and VSG-L chassis: See individual datasheets for more details.

Variant	Video ports		Audio ports		Ethernet ports	Data ports	Dry contact		VSG Slots required
	Encoding	Decoding	Encoding	Decoding			Sense	Closer	
VSG 1000-E Video Encoder	2				1	2			1
VSG 1000-D Video Decoder		2			1	2			1
VSG 1200-E MultiMedia Encoder	2 - 1		1	1	1	2			1
VSG 1200-D Multimedia Decoder		1 - 2	1	1	1	2			1
VSG 1200-I/O Panel							4	4	1



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