



# SRT

## Transport Solutions

Cloud-based workflows, remote production setups, and decentralized teams are becoming increasingly prevalent in live production. Factors such as cost efficiency, scalability, and the ability to tap into geographically diverse talent pools are exciting opportunities, but also present new challenges. Traditional video transport solutions, often relying on dedicated terrestrial links or expensive satellite uplinks become cost-prohibitive and cumbersome for deploying these modern workflows at scale.

Introducing the OSG-8971 openGear Streaming Gateway and softGear Streaming Gateway.

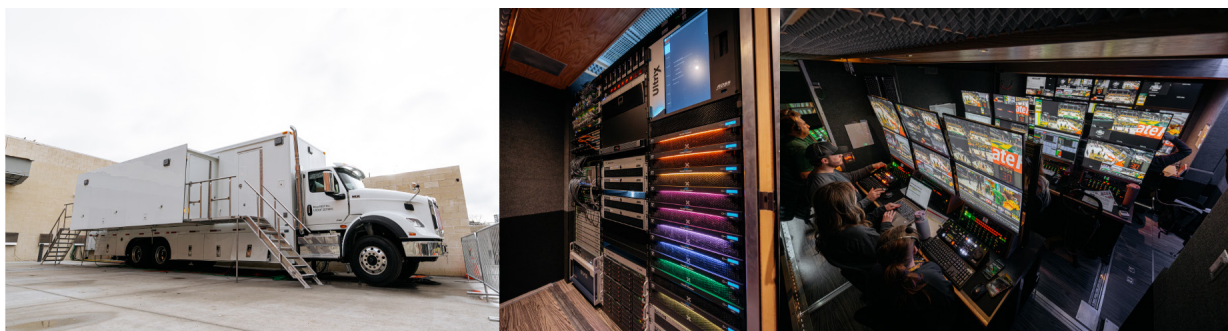
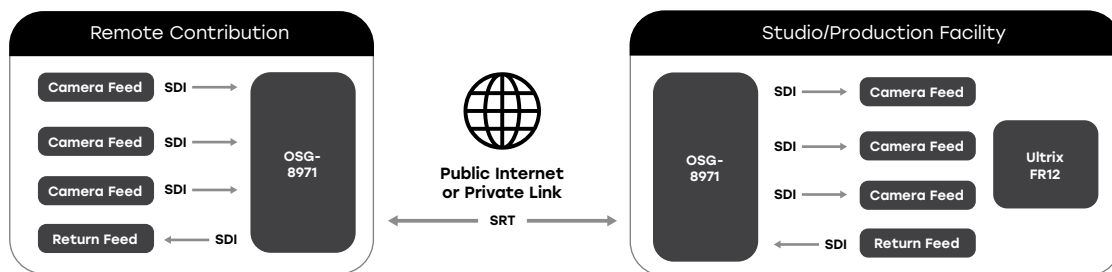
The OSG-8971 is a high-density openGear encoder/decoder card that delivers reliable and cost-effective SDI over SRT transport for demanding applications like cloud production, REMI, and geographically distributed workflows. Whether the requirement is for point-to-point connections or ground-cloud-ground transport, OSG-8971 excels as your on-premises hardware solution.

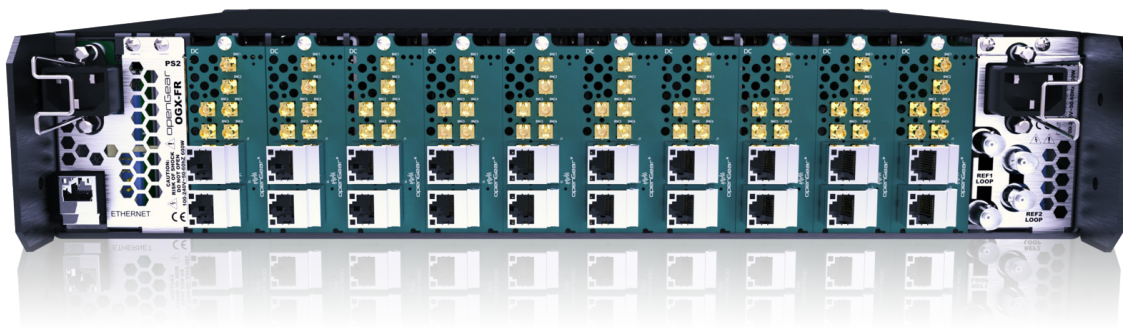
For seamless ground-to-cloud workflows, the cloud-native softGear Streaming Gateway is your solution. It completes the bridge to on-premises resources and facilitates the exchange of your content with other cloud production services.

The OSG-8971 and softGear Streaming Gateway provide a comprehensive and powerful toolkit to overcome the challenges of modern video transport and unlock the full potential of your next production.

## OSG-8971: Your On-Premises Gateway to Reliable Video Transport

The OSG-8971 is an openGear hardware solution designed to tackle the demanding needs of modern production and broadcasting. This high-density encoder/decoder card brings reliability, versatility, and efficiency to your SRT transport requirements, whether for point-to-point connections or ground-cloud-ground workflows.





## Unmatched Density, Form-Factor and UHD Support:

Pack up to 10 cards into a single openGear oGX frame, enabling the OSG-8971 to support 60 x 720p/1080p or 20 x 2160p encodes/decodes per 2RU. This modular form factor and openGear platform offers efficient hardware integration and deliver true broadcast-grade reliability for 24/7/365 operation.

## Reliable SRT Protocol and Advanced CODEC Support:

At its core, the OSG-8971 leverages the SRT protocol. This powerful technology offers secure, low-latency, and high-quality video transport, even across unstable public networks. SRT overcomes common challenges like packet loss, jitter, and latency, bringing broadcast-grade reliability to cost-effective and widely available networks. Featuring industry-standard AVC and HEVC codecs, the OSG-8971 maintains exceptional video quality while minimizing processing latency.

## Flexible Audio Mapping:

Easily configure up to 8 audio channels per video stream for complex setups like 5.1 surround, multiple languages, or various audio sources. Flexible mapping lets you route audio from any input to any SDI output channel for total control.

## Bi-Directional Operation:

Each of the OSG-8971's six HDBNC ports can be configured as an SDI input or output. This flexibility means a single card can handle both encoding and decoding simultaneously, reducing costs and streamlining signal flows such as backhaul setups with return feeds for monitoring. Genlock input with framesync on every decoder output ensures received streams are easily timed to your facility.

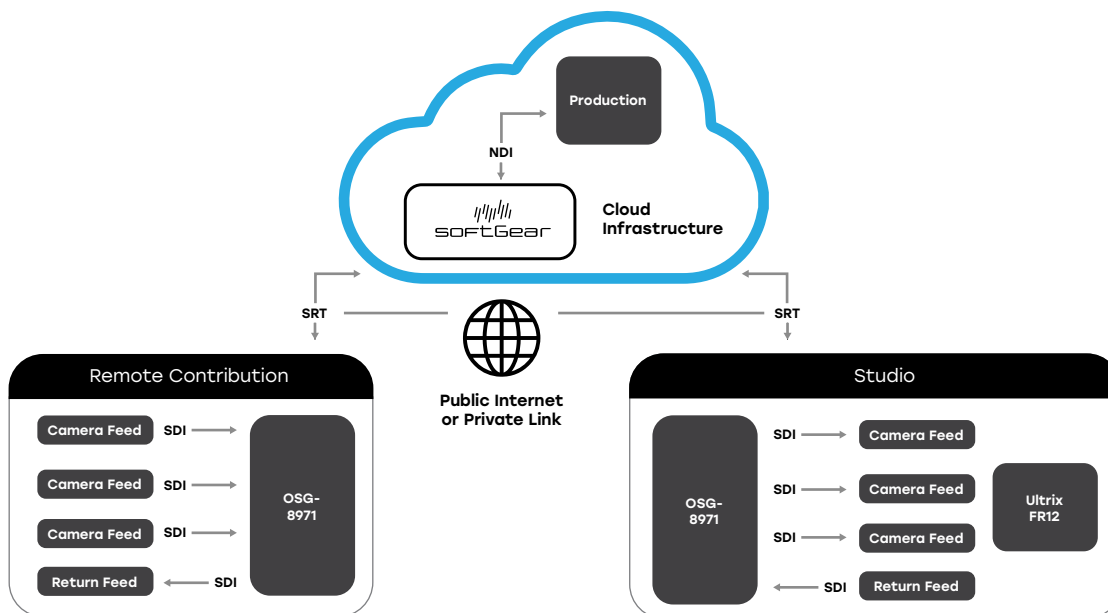
## Efficient Control:

Gain powerful remote monitoring and control capabilities with Dashboard, a unified platform that extends beyond the OSG-8971 and oversees your entire facility. The openGear platform provides a single, centralized point of control for up to 10 cards per oGX frame, minimizing switch port usage and simplifying your control network.

The OSG-8971 offers a comprehensive solution for reliable and efficient video transport, empowering you to take on the challenges of modern production workflows and deliver exceptional broadcast experiences.

## softGear Streaming Gateway (SSG): Bridging On-Premises and Cloud for Seamless Production Workflows

The softGear Streaming Gateway (SSG) is a cloud-based solution designed to break down barriers and empower next-generation production workflows. It seamlessly connects on-premises and cloud-based environments, providing a flexible and scalable platform for efficient video transport and processing. It efficiently receives and decodes SRT streams from the ground, forwarding them onwards for further processing using NDI-based cloud services. Conversely, it can retrieve content from other cloud instances via NDI and send it back to the ground over SRT.



### Scalability and Flexibility:

The SSG is built for flexibility and scalability. A single cloud instance can operate bi-directionally, handling up to 8 SRT streams to/from the ground and 8 NDI streams within the cloud. This versatility allows you to adapt to varying production needs without directionality constraints.

### Cost-Effective Bandwidth Management:

With the SSG, you gain control over your bandwidth usage. The gateway offers the ability to create IP proxy versions of your content by adjusting frame rate and resolution. This allows you to pay only for the egress bandwidth you actually need, reducing costs in situations where full resolution is not essential.

## Streamlined Workflows:

As a perfect complement to Ross Video's cloud-based ecosystem, the SSG facilitates smooth connectivity for XPression and Graphite CPC instances running in the cloud. This streamlines your workflow, enhances efficiency, and empowers you to unlock the full potential of cloud-based production solutions.

## More Than Just Transport:

The SSG goes beyond simply transporting video streams. It offers advanced capabilities like audio channel remapping and sample rate conversion, providing additional control and flexibility for your production needs.

## Unified Experience:

The softGear Streaming Gateway leverages DashBoard for unified and streamlined control. This familiar interface minimizes the learning curve for users, allowing them to seamlessly manage both ground-based and cloud-based elements within a single, cohesive workflow.

Available as a perpetual license or a monthly subscription model, SSG runs on AWS. Leverage the power of the cloud, unlock new possibilities, and experience the agility and cost-effectiveness of next-generation workflows.

## Secure Reliable Transport (SRT): Your Key to High-Quality Video Over Any Network

Secure Reliable Transport (SRT) is an open-source video transport protocol designed to overcome the challenges of streaming over both stable and unpredictable networks, including the public internet.

The OSG-8971 and softGear Streaming Gateway leverage SRT to optimize streaming performance by:

**Enhancing security:** Encrypted streams protect your valuable content throughout transmission.

**Simplifying firewall traversal:** SRT streamlines delivery even through complex network setups.

**Overcoming network challenges:** SRT combats packet loss, jitter, and latency, ensuring smooth, high-quality video even on less-than-ideal connections.

With SRT, you can confidently deliver live video productions securely and reliably, regardless of network limitations.

**SRTALLIANCE**  
SECURE RELIABLE TRANSPORT

## Specifications

OSG-8971				
SDI INPUTS/OUTPUTS				
	Format	Max. Channels	Configuration	
Channels	HD/3G	Up to 6	Each channel individually selectable as input or output	
	UHD	Up to 2	Each channel individually selectable as input or output	
	Mixed HD/3G/UHD	Automatic Bandwidth Management	The OSG-8971 intelligently allocates bandwidth for a valid combination of one UHD channel and up to three HD/3G channels	
Formats	Format	Standard		
	720p 50/59.94 Hz	SMPTE 292M		
	1080p 50/59.94 Hz	SMPTE 424M (Level A)		
	2160p 50/59.94 Hz	SMPTE 2082		
Genlock	Supports frame genlock, selectable from input 1 or 2. Framesync on decoder outputs.			
Connectors	HDBNC			
ENCODER/DECODER INPUTS/OUTPUTS				
	CODEC	Profiles	Chroma/Bit Depth	Bit Rates
CODECs	H.264 (AVC)	Baseline, Main and High	4:2:0, 8 Bit	HD: Up to 60 Mb/s UHD: Up to 100 Mb/s
	H.265 (HEVC)	Main and Main10	4:2:0, 8 Bit 4:2:0, 10 Bit	
Audio	Supports up to 8 channels of AAC per video stream. Full remapping capability to any SDI output.			
Transport	SRT (Secure Reliable Transport)			
Role	Supports Caller, Listener and Rendezvous modes			
Interface	10/100/1000 Base-T, RJ45			
PHYSICAL				
Compatible with openGear oGx series frames equipped with advanced network controllers. Two-slot rear module, 10 cards per 2RU frame.				

Softgear Streaming Gateway				
ENCODER/DECODER INPUTS/OUTPUTS				
Channels	Format	Max. Channels	Configuration	
	SD/HD/3G	Up to 8 per instance	Each channel individually selectable as input or output	
Formats	720p 50/59.94Hz 1080i 50/59.94 Hz 1080p 50/59.94 Hz 480p (Proxy IP Only) 10/24/25/29.97/30/50/59.94/60 Hz			
ENCODER/DECODER INPUTS/OUTPUTS				
	CODEC	Profiles	Chroma/Bit Depth	Bit Rates
CODECS	H.264 (AVC)	Main High	4:2:0, 8-bit 4:2:2, 8 Bit	100 kb/s - 100 Mb/s
	NDI	HB	4:2:2, 8 Bit	720p, 1080i: 100 Mb/s 1080p: 150 Mb/s 480p: <35 Mb/s
Audio	Up to 16 channels of AAC per stream, full remapping and SRC capability			
Transport	SRT (Secure Reliable Transport) NDI			
Role	Supports both Caller and Listener modes			
PROCESSING				
Video	<ul style="list-style-type: none"> <li>Resolution Scaling</li> <li>Aspect Ratio Control</li> <li>Frame Rate Conversion</li> <li>Interlace or Progressive</li> </ul>			
Audio	<ul style="list-style-type: none"> <li>Channel Mapping</li> <li>Sample Rate Conversion</li> </ul>			
DEPLOYMENT				
AWS	Number of SRT Channels		AWS EC2 Instance	
	1		c5n.xlarge	
	2		c5n.2xlarge	
	4		c5n.4xlarge	
	8		c5n.9xlarge	
Minimum disk space: 100 GB				

## Ordering Information

OSG-8971	
OSG-8971-R4	openGear streaming gateway, up to 6 HD/3G SDI I/O, SRT streaming, includes rear module
OSG-8971-UHD-LICENSE	Enables support for two UHD I/O

softGear Streaming Gateway	
<b>PERPETUAL</b>	
SG-SGW-CLOUD-PKG	softGear Streaming Gateway for Cloud, Perpetual
SG-SGW-NDI-CDI-LICENSE	NDI Gateway (8 channels), Perpetual
SG-SGW-4CH-SRT-LICENSE	SRT Gateway (4 channels), Perpetual
SG-SGW-CLOUD-SM	Annual Software Maintenance
<b>SUBSCRIPTION</b>	
SG-SGW-CLOUD-PKG-SUB	softGear Streaming Gateway Cloud, Subscription
SG-SGW-NDI-CDI-LICENSE-SUB	NDI Gateway (8 channels), Subscription
SG-SGW-4CH-SRT-LICENSE-SUB	SRT Gateway (4 channels), Subscription