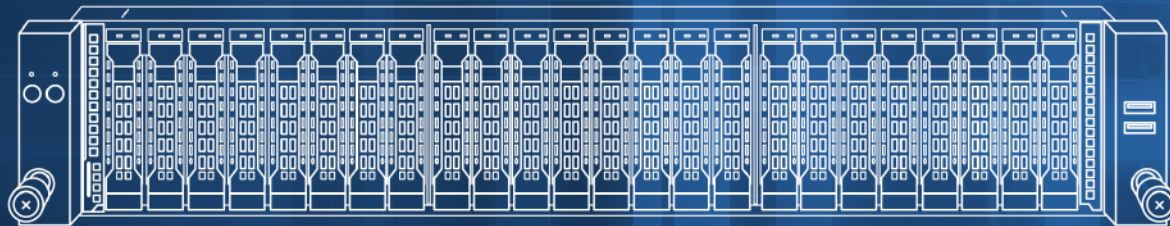


# PELICAN VIDEO TRANSCODING PLATFORM



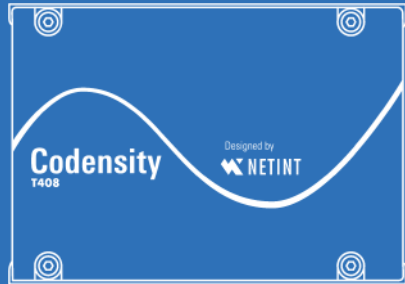
Low Latency, Real-Time Video Transcoder

# Introduction

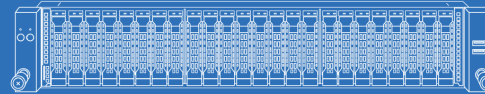
With the rapid growth of video streaming, software-based video encoding can no longer economically scale to meet acceptable density, performance, and TCO benchmarks.

The Pelican Video Transcoding Platform with its scalability and performance is optimized for low-latency, real-time video applications at a TCO that is ten times less than CPU-based software video encoding.

# Up to 96 Broadcast Quality 1080p60 Live Streams in 2RU.



**Up to 24 NETINT T408  
Video Processing Units**



**Pelican 2RU Video  
Transcoding Platform**

- High throughput, low latency, multi-stream transcoding platform.
- Simple set up utilizing an integrated and intuitive graphical user interface or REST API
- Typical workloads include, Live Streaming, Surveillance, Live to File Transcoding, and File to File Transcoding.

The Pelican Video Transcoding platform enables low-latency, real-time 4K video transcoding to meet the live streaming requirements of broadcasters, OTT/IPTV platforms and surveillance system operators. The Pelican Video Transcoding platform's advanced encoding capabilities are enabled by the NETINT T408 Video Processing Unit.

The T408 is an ASIC-based video transcoder module that supports H.264 and HEVC video encoding at up to 4K resolution and with 10-bit HDR. The high throughput of the Pelican Video Transcoding Platform supports ultra low latency encoding of 4K live streams in a range of form factors optimized for every operating environment.



Security



OTT / IPTV



Live Streaming



Live to File  
Transcoding



File to File  
Transcoding

# Benefits

## High Density Encoding

Ten times increase in video encoding density compared to software.

## 4K/UHDTV/HDTV and HDR

Supports a wide variety of streaming applications.

## Integrated GUI

Intuitive and easy to use interface for fast set up and configuration of encoding workflows.

## Ultra Low-Latency Encoding

Enables Interactive video applications.

## Real-Time Encoding

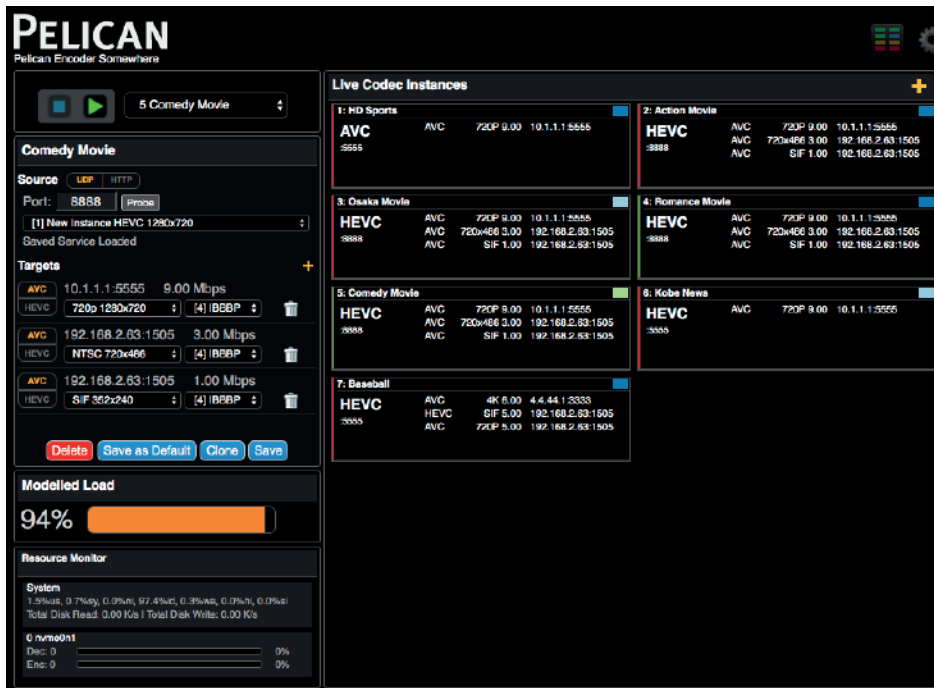
Optimized for live streaming and interactive video applications.

## Scalable

High capacity encoding architecture with simple encoding capacity upgrade path.

# Simple Integration

The Pelican Video Transcoding Platform features an easy to use graphical user interface simplifying the configuration of complex video transcoding tasks. In addition, Pelican can also be fully managed remotely via the built-in REST API. Using HTTP commands, key encoder and system parameters can be queried and/or modified, simplifying the integration of Pelican with third party automation or management systems.



**PELICAN**  
Pelican Encoder Somewhere

5 Comedy Movie

**Comedy Movie**

Source:  UDP  HTTP

Port: 8888

[1] New Instance HEVC 1280x720

Saved Service Loaded

**Targets**

AVC	10.1.1.1:5555	9.00 Mbps
HEVC	720p 1280x720	[4] IBPBP
AVC	192.168.2.63:1505	3.00 Mbps
HEVC	NTSC 720x486	[4] IBPBP
AVC	192.168.2.63:1505	1.00 Mbps
HEVC	SIF 362x240	[4] IBPBP

**Modelled Load**

94%

**Resource Monitor**

**System**

1.3%Mem, 0.7%Key, 0.0%In, 97.4%U, 0.3%Sw, 0.0%N, 0.0%R

Total Disk Read: 0.00 K/s | Total Disk Write: 0.00 K/s

**0 nvm001**

Dev: 0 0%

Enc: 0 0%

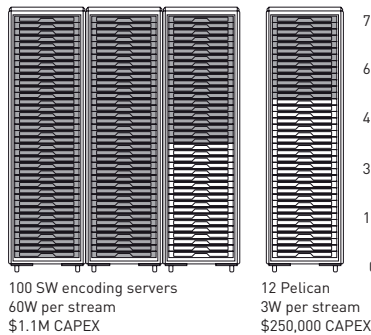
**Live Codec Instances**

<b>1: HD Sports</b>	AVC	720P 9.00	10.1.1.1:5555
	HEVC	720x486 3.00	192.168.2.63:1505
	AVC	SIF 1.00	192.168.2.63:1505
<b>2: Action Movie</b>	AVC	720P 9.00	10.1.1.1:5555
	HEVC	720x486 3.00	192.168.2.63:1505
	AVC	SIF 1.00	192.168.2.63:1505
<b>3: Osaka Movie</b>	AVC	720P 9.00	10.1.1.1:5555
	HEVC	720x486 3.00	192.168.2.63:1505
	AVC	SIF 1.00	192.168.2.63:1505
<b>4: Romance Movie</b>	AVC	720P 9.00	10.1.1.1:5555
	HEVC	720x486 3.00	192.168.2.63:1505
	AVC	SIF 1.00	192.168.2.63:1505
<b>5: Comedy Movie</b>	AVC	720P 9.00	10.1.1.1:5555
	HEVC	720x486 3.00	192.168.2.63:1505
	AVC	SIF 1.00	192.168.2.63:1505
<b>6: Kobe News</b>	AVC	720P 9.00	10.1.1.1:5555
	HEVC	720x486 3.00	192.168.2.63:1505
	AVC	SIF 1.00	192.168.2.63:1505
<b>7: Baseball</b>	AVC	4K 8.00	4.4.44.1.3333
	HEVC	SIF 5.00	192.168.2.63:1505
	AVC	720P 8.00	192.168.2.63:1505

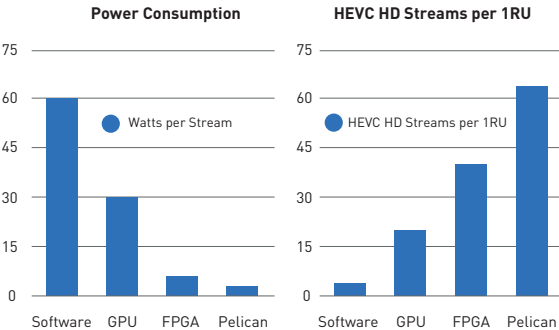


# Total Cost of Ownership

## Software Encoders vs. Pelican, 1000 Streams



## Video Encoding with Lowest TCO and Highest Density



\$1,320,330 operational cost savings per year based on 10,000 live streams. The Pelican Density Video Transcoding Server utilizes one-fortieth the rack space for the same number of streams as compared with CPU-based video encoders. Pelican Density video transcoders use 80X less energy than CPU powered video transcoding systems.

OTT video transcoding workflows are typically accomplished utilizing CPU based software transcoding. Pelican utilizes ASIC powered, NETINT T408 Video Processing Units enabling highly efficient video transcoding workflows. Deploying Pelican in your data center provides a 10:1 reduction in rack space combined with a 95% reduction in operating costs (OPEX).

System	Pelican XS	Pelican	Pelican-24
Transcoder modules	1	1 to 8	1 to 24
Gigabit Ethernet Ingest/Streaming Port	1	1	Multiple
10G Ethernet Streaming Port	NA	option	option
Gigabit Ethernet Management Port	1	1	1
CentOS Enterprise Linux	✓	✓	✓
CPU	1 x Core i7	2 x E5-2620	2 x E5-2620
RAM	8 GB	32 GB	32 GB
Power Supply	Single, built-in	Dual, removable	Dual, removable
Power Consumption	150W	500W	500W
Input Voltage	88 - 250V	100 - 240V	100 - 240V
Operating Temperature Range	10° - 30°C	0° - 40°C	0° - 40°C
Form Factor	1RU Server	1RU Server	2RU Server
<b>Control Interfaces</b>			
HTML5 GUI	✓	✓	✓
REST API	✓	✓	✓

For more information about the Pelican Video Transcoding Platform, contact us at:

- ✉ [ask@torquevideo.tv](mailto:ask@torquevideo.tv)
- 🌐 [www.torquevideo.tv](http://www.torquevideo.tv)

For more information on NETINT VPU solutions, contact us at:

- ✉ [go@netint.ca](mailto:go@netint.ca)
- 🌐 [www.netint.ca](http://www.netint.ca)