



VPU Deployment Options

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Upgrade Current Hardware

		Smart VPU T1U	Smart VPU T1A	Smart VPU T2A	OEM VPU T1M
					
ASIC Hardware		G5	G5	2x G5	G5
Size / Form Factor		U.2	AIC	AIC	M.2
Power Consumption		17W	20W	40W	8-10W
Artificial Intelligence		15 TOPS	15 TOPS	36 TOPS	0
Performance	Encode	32x 1080p30 8x 4Kp30 2x 8Kp30		64x 1080p30 16x 4Kp30 4x 8Kp30	20x 1080p30 5x 4Kp30
	Decode	48x 1080p30 12x 4Kp30 4x 8Kp30		96x 1080p30 24x 4Kp30 8x 8Kp30	25x 1080p30 6x 4Kp30
Codecs	Encode	H.264, HEVC, AV1, JPEG, HEIF, AVIF			
	Decode	H.264, HEVC, VP9, JPEG			
Features		Capped bitrate CRF / scaling / graphic overlay / color conversion			

Benefits

- Accelerate Deployment
- Reuse existing hardware
- Reduce CAPEX

Quadra Video Servers



Ampere Edition
ARM



AMD Edition
x86



- AV1, HEVC, H.264 encoding
- Up to 8K rez, 10-bit HDR
- 180 TOPS AI DNN engines
- Server contains 10 VPU's
- Supermicro chassis, 1RU

Quadra Mini Server with Quadra T1M

Half rack

- **Ideal for mobile broadcast** - on-site event recording and distribution of single stream with edge processing.
- **Push multiple simultaneous streams** to social sites.     
- **Includes T1M Smart VPU**
- **Includes SDI capture card inside**



Infrastructure-as-a-Service (IaaS)

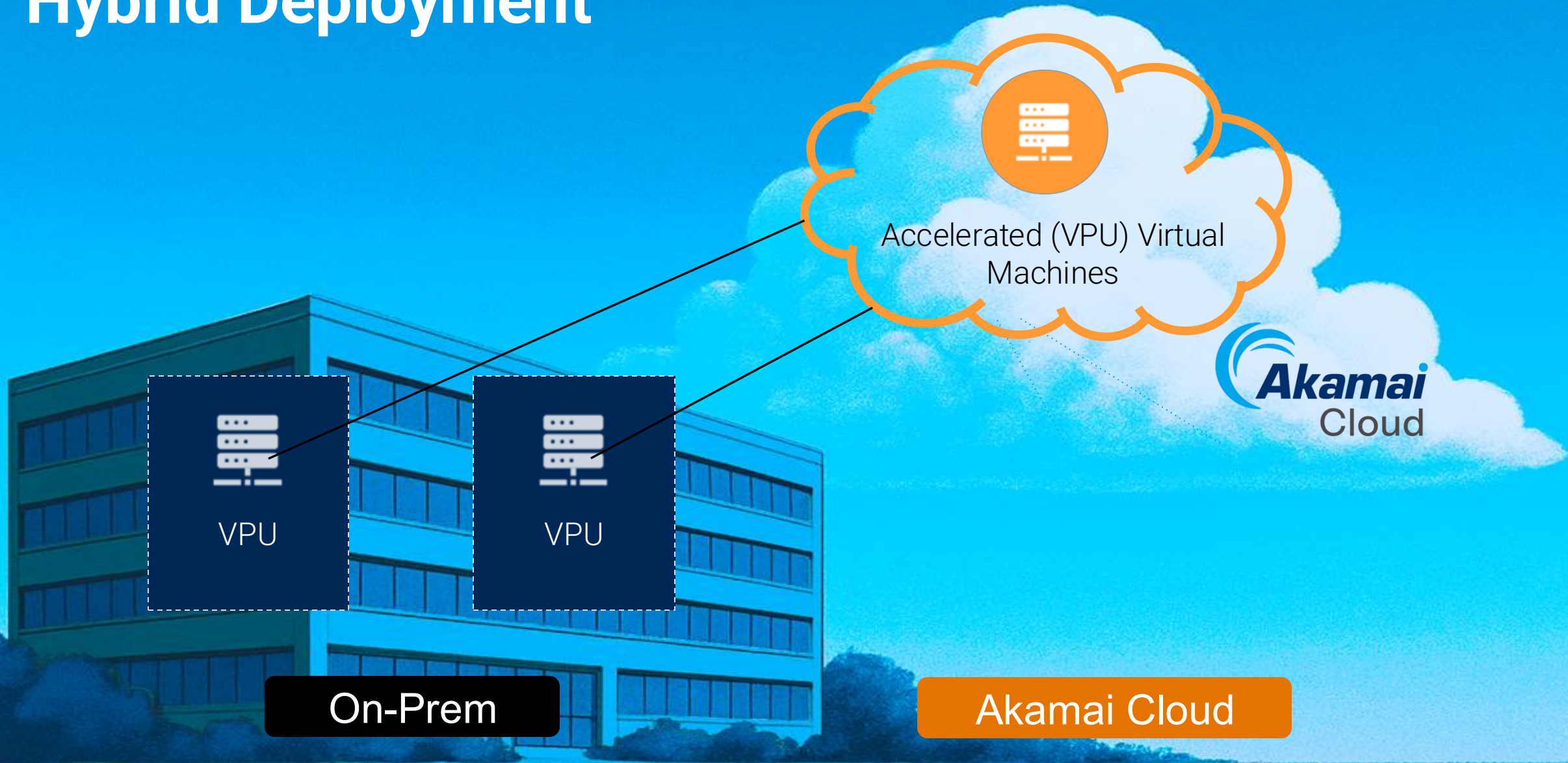
- A VPU infrastructure with significant and impressive cost reductions in monthly subscription costs and egress fees



VPUs delivered:

- Mature and proven high-density video decoding and encoding in cloud with a large customer base
- Build a Hybrid Approach

Hybrid Deployment



Supported Software Stack:

NETINT API via libxcoder



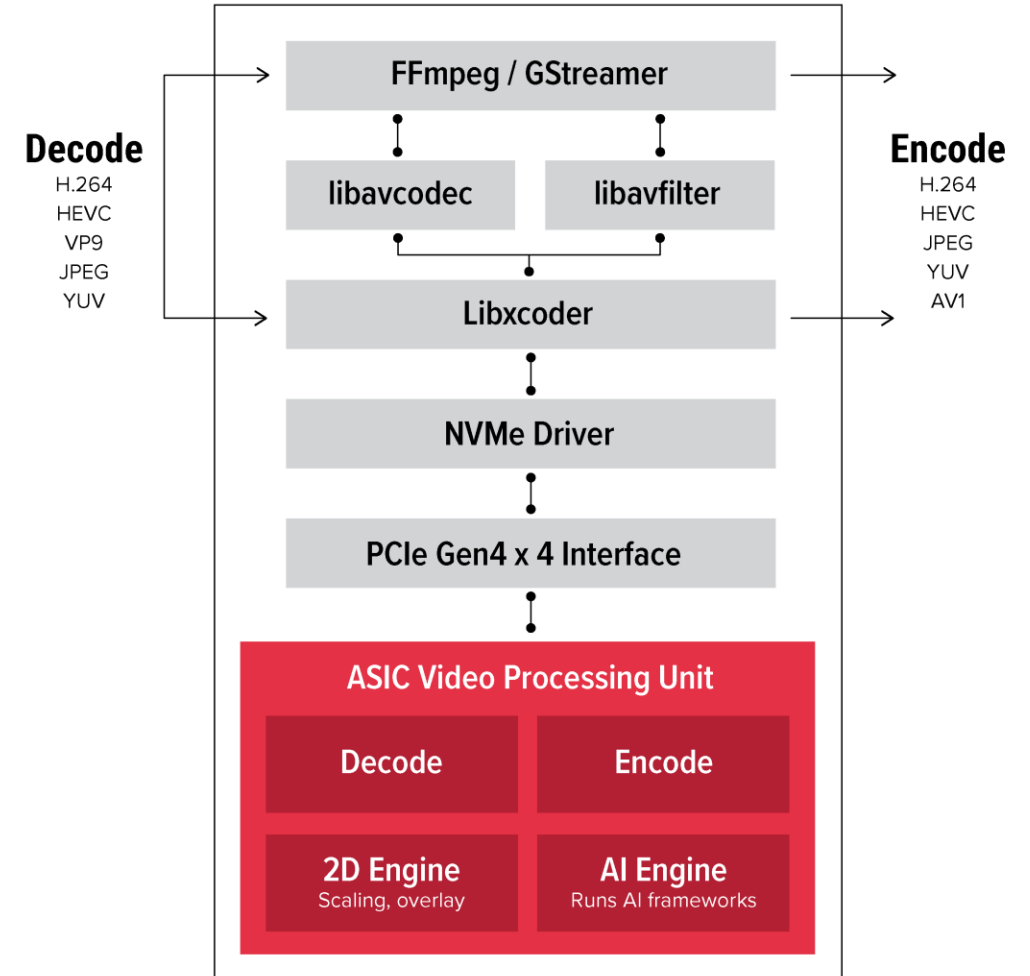
v5.1, v6.1, v7.1 and v8 (coming soon)



1.22, 1.24, 1.26

Upstreaming our SDK package along with features and bug fixes. NETINT is committed to **giving back to the open-source community.**

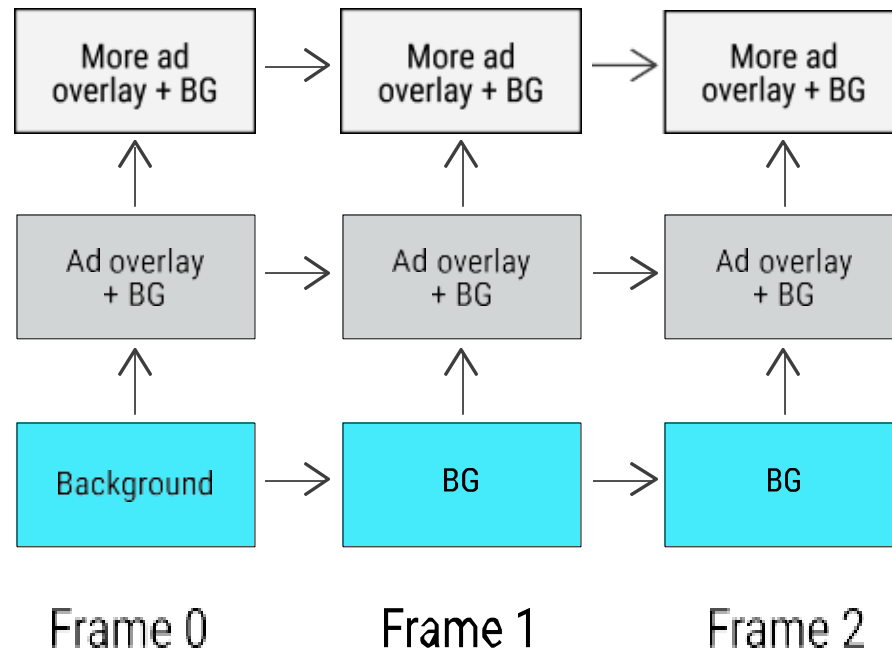
Quadra Software Workflow



Supported SDK Feature

Multilayer AV1 Encoding

Multiple layers for creative variations of ads and effects



VPUs delivered:

- Up to 4 layers (BL, EL1-3)
- Customizable reference structure
- Realtime 1080p60 performance

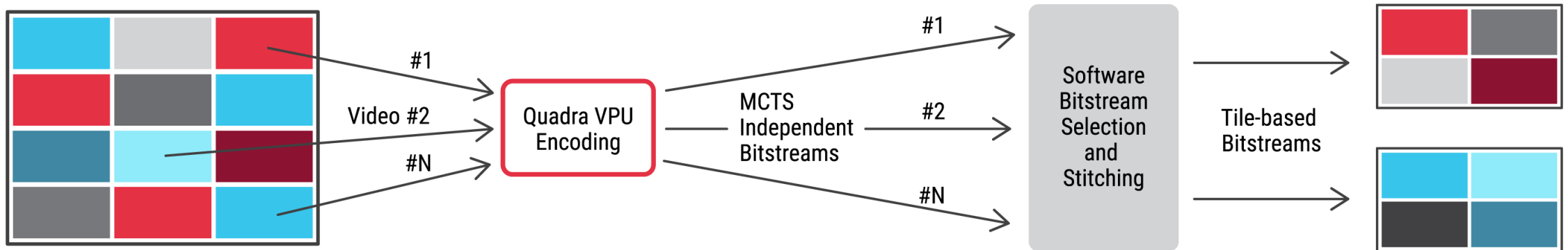
Supported SDK Feature

Multiview Encoding

- For live streaming multiple games simultaneously in user-defined quad split screen
- YouTube, NBA etc have this feature, ideal for fantasy sports, watching and betting

VPUs delivered:

- Stitching 4 independent bitstreams into one tile-based bitstream
- MCTS encoding to prevent motion vectors from crossing tile boundaries
- Encode only once for each stream, not for each combination



Ideal Users



Streaming
platforms **without**
in-house software
development

Service providers,
broadcasters,
and linear TV
operations

Teams
managing on-prem
hardware with limited
dev resources

Organizations with
compliance
requirements and
auto-recording
needs

Basically, any business needing powerful tools without building from scratch.

Core Features

- Configurable ladder templates
- View outbound streams in player
- VOD Recording
- Multiple outputs on the same input
- Convert DVB Teletext/Subtitles to WebVTT (HLS only)
- Convert DVB Teletext/Subtitles to TMLL (CMAF only)
- File to File Transcoding
- Push to Origin Servers

System Overview:

- Code-free UI for FFmpeg
- Visual Dashboard for: Streaming Error Alerts, System Health Check, and CPU/VPU capacity loads
- Generates report logs
- Template based configurations
- Web app or custom API management

Specifications

Input

- RTMP
- SRT
- RTSP
- Multicast/UDP
- SDI
- DASH/HLS

Codecs

- H.264/AVC
- H.265/HEVC
- AV1

Output

- SRT
- UDP Multicast
- RTMP
- SRT
- AWS MediaPackage v2
- CMAF
- File (Continuous 24/7/365)
- DASH/HLS

Feature Roadmap

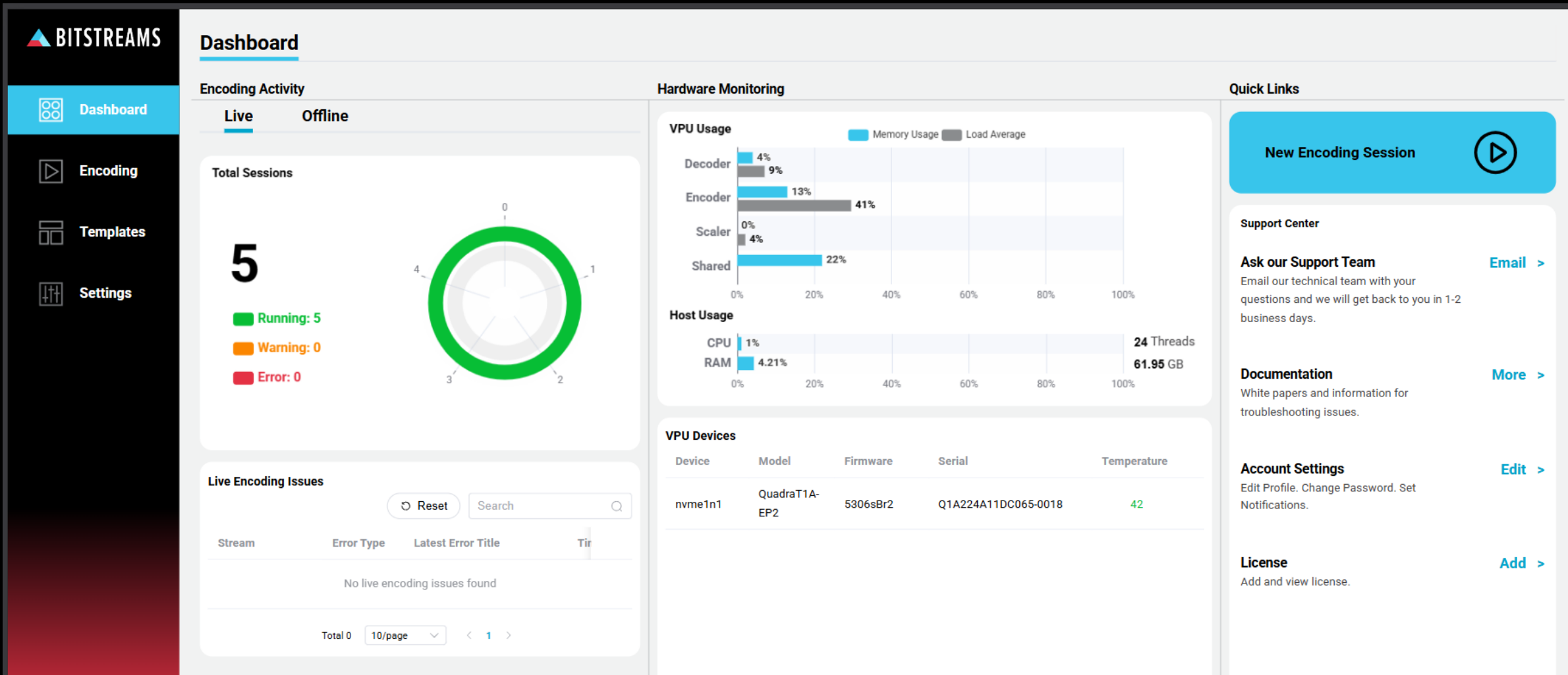
End of 2025

- WebRTC (WHIP)
- RTP Input
- Audio Level Control (ALC)
- E-AC3/OPUS Audio Codec
- SMPTE-2110

Coming in 2026

- RIST
- NDI
- Zixi
- DRM
- Additional Statistics
- Bitstreams Manager





Dashboard



Dashboard



Encoding



Templates



Settings

D

Documentation

Support 2.7.0

Account Settings

Encoding

From this page users can view the status of current encoding sessions, along with viewing the current configuration. Users are also able to stop, start streams and navigate to a more detail page by clicking on the stream name.

To create a new encoding session, use the "+ New Encoding Session" button on the right hand side of the screen.

Live Sessions

Offline Sessions

Start All

Stop All

Reset

Search

Status	Encoding Information	Input URL	Template	Output URL(s)	Message
Stopped	 Sports Channel 1 High action sports	udp://239.31.1.1...laddr=10.141.1.4 udp://239.31...r=10.141.1.4	Sports Selected	udp://239.31.1.2:8000?localaddr=10.141.1.4 udp://239.31.1.3:8000?localaddr=10.141.1.4 udp://239.31.1.1:8000?localaddr=10.141.1.4	
Active	 Sports Channel 2 Sports from Canada	https://dwamdstr...eamPlaylist.m3u8	Sports	http://10.141.1.4/live/3n...i9q1Eeuvjwtq39DCqSogZ.mpd	
Disconnected	 World News 24hrs of Global News	rtmp://10.141.1....b66-dcf6c1b60abe			
Active	 Retro Comedy Best comedy channels form the 80's 90's and 00's	https://dwamdstr...eamPlaylist.m3u8			
Active	 Live Sporting Event The largest sporting event in the world	https://dwamdstr...eamPlaylist.m3u8			
Active	 In house test channel Using to test the newest feature	https://dwamdstr...eamPlaylist.m3u8			

Total 610/pa

BITSTREAMS

Dashboard

Encoding

Templates

Settings

D

Documentation

Support 2.7.0

Account Settings

Encoding

Live Session Detail

Name

Sports Channel 1

Description

High action sports

Cover Graphic



Status

Stopped

Duration

00h 00m 46s

Start Encoding

Stream URLs

Recordings

Alerts

Copy and paste these pertinent URLs for posting and sharing stream.

Stream ID

18465e8bc4cf43899e575317276e672f

Multicast URL Input A

udp://239.3...-10.141.1.4

Multicast URL Input B

udp://239.3...-10.141.1.4

Switch to Input A

Enable Failover

Enable Failover

Fallover Option

Fallover with Recovery Attempts to Input A

Fallover Recovery Interval (seconds)

120

Packet Error Threshold (%)

0.01

Multicast UDP

Output/Service Name	Configuration	Template	Output URLs
output	Stream Configuration	Sports	1920 x 1080 (1080p) udp://239.31.1.2:8000?localaddr=10.141.1.4 1280 x 720 (720p) udp://239.31.1.3:8000?localaddr=10.141.1.4 1280 x 720 (720p) udp://239.31.1.1:8000?localaddr=10.141.1.4

Encoding





Templates

From this page users can view all the templates configured. By clicking on the row, a summary of the template will be displayed on the right. Users will then be able to modify the template by clicking the edit icon.

To create a new template, use the "+ Create New Template" button on the right hand side of the screen

[+ Create New Template](#)

Reset



Preview Configuration



Please select a template

Name	Description	Created
Dev Template	Testing the newest feature	2025-09-04 09:58:19
Sports	Profile used for Sports	2025-06-17 10:15:30
News	News program	2025-05-01 09:13:41
Example_High_Quality-H.265	H.265 5x Output Encoding Ladder 1080p-720p-540p-360p-270p	2025-03-28 11:07:36
Example_High_Quality-H.264	H.264 5x Output Encoding Ladder 1080p-720p-540p-360p-270p	2025-03-28 11:07:36

Total 5

10/page

< 1 >

Template Detail

Cancel

Save

Name: News
Description: News program

Video Parameters Audio Parameters Subtitles Advanced Format Graphics Overlay

For more details about the audio templates, please refer to our [Audio Template documentation](#).

Default Language: eng [Supported Language Codes](#) If audio stream is not specified, this language will be used as default

Input Index	Language	Default Language	Codec	Profile	Channel	Bitrate (kbps)	Sample Rate	Action
0	copy	und	AAC	AAC_LOW	0 (passthrough)	128	48k	
1	copy	und	AC3		0 (passthrough)	128	48k	
1	copy	und	AC3		6 (5.1)	192	48k	

[+ Add Output](#)

Template Detail

Name: Example_High_Quality-H.265

Description: H.265 5x Output Encoding Ladder 1080p-720p-540p-360p-270p

Video Parameters Audio Parameters Subtitles Advanced Format Graphics Overlay

Output	Codec	Bitrate (kbps)	Frame Rate (FPS)	Resolution (width x height) (px)
1	H.265	3328	30	1920 x 1080 (1080p)
2	H.265	1761	30	1280 x 720 (720p)
3	H.265	1148	30	960 x 540 (540p)
4	H.265	693	30	640 x 360 (360p)
5	H.265	500	30	480 x 270 (270p)

Template



Questions?
Thank You

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