

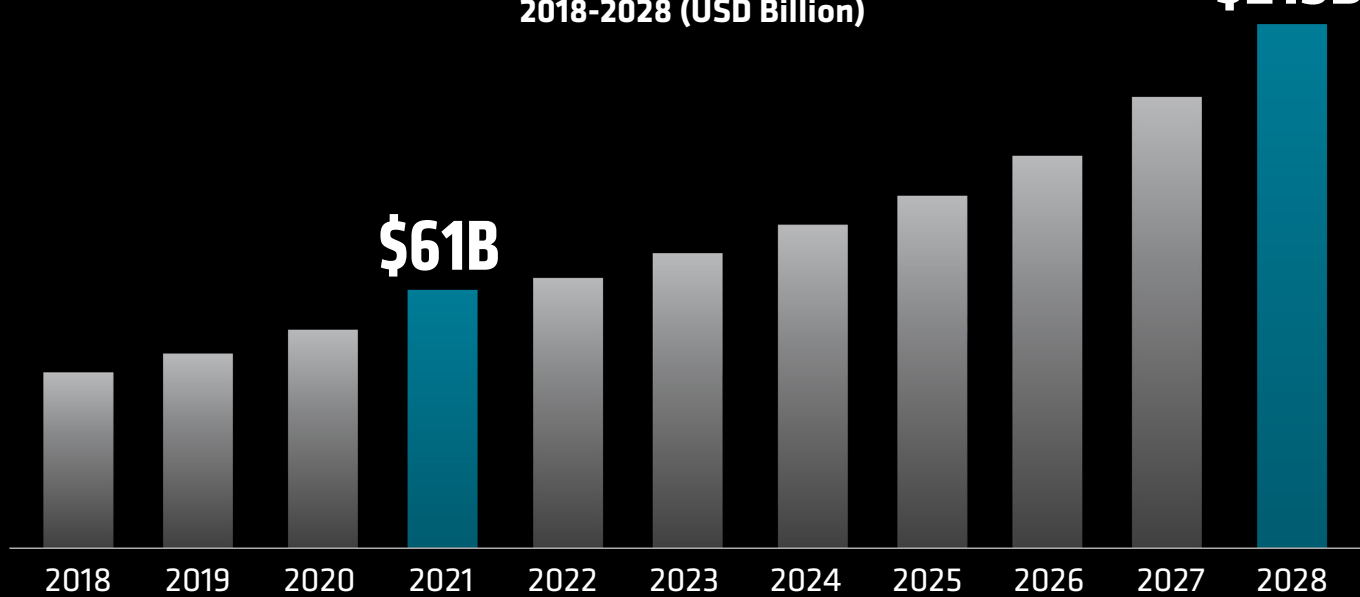
# AMD ALVEO™ MA35D

Unleashing Interactive Streaming at Scale  
Efficiency Meets Performance

## CHALLENGES

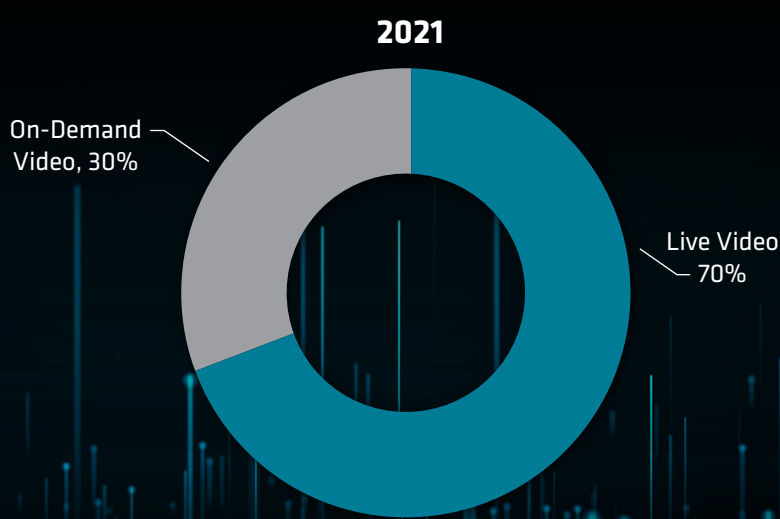
Growing at 20% CAGR

Global Video Streaming Market, By Value<sup>1</sup>  
2018-2028 (USD Billion)



70% is Live Streaming

Global Video Market Share by Video Type<sup>1</sup>



Enabling the Creator Economy

“Everyone’s a Streamer<sup>2</sup>”

50 Million

people consider themselves creators

Amateurs

46.7 Million

of those consider themselves amateurs

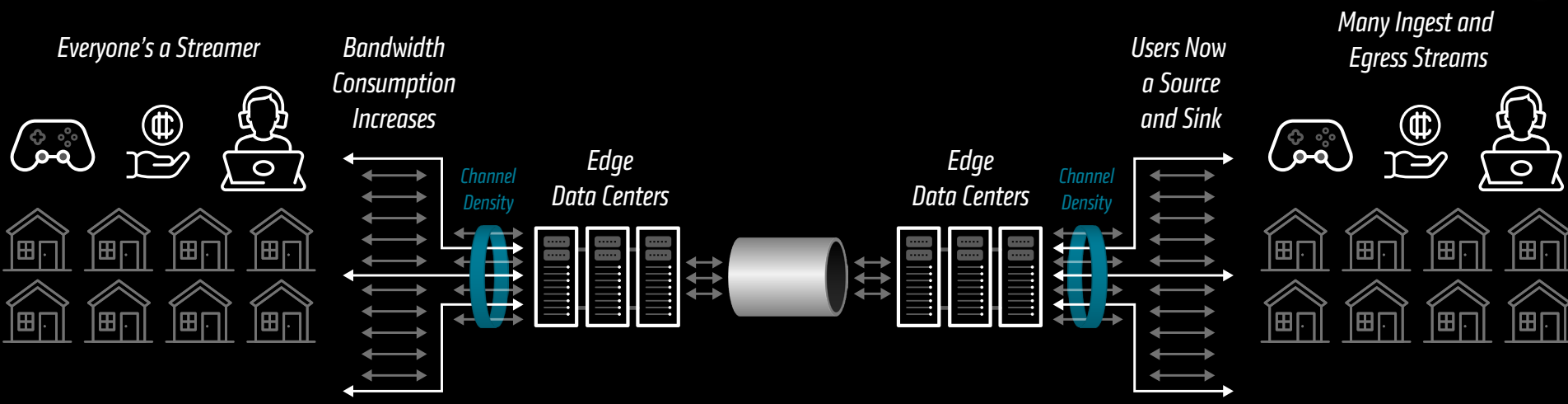
Professionals

2 Million+

creators are professionals

## TRENDS

Next Generation Interactive Model: Many-to-Many



The Infrastructure Deployment Model Needs to Fundamentally Change

## Cost Pressures for Live Streaming

Compute  
**21X**

compute needed for next gen standards (8K, 120fps, AV1 codec)<sup>3</sup>

Bandwidth  
**50%**

of cost per user is bandwidth OPEX (cloud gaming)<sup>4</sup>

Power  
**66%**

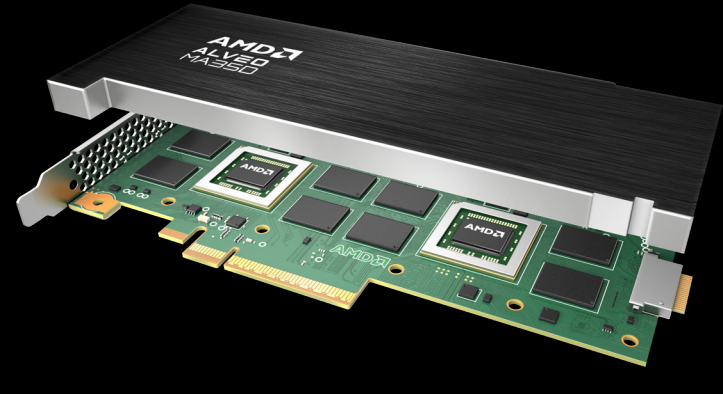
of power consumption comes from server / data center infrastructure<sup>5</sup>

## SOLUTION

AMD Alveo™ MA35D Media Accelerator

- High Density, Ultra-Low Latency Streaming
- AI-Enabled, Intelligent Video Processing
- Cost-Effectively Scale for Emerging Applications

# Streams x Resolution	8k 4kp60   32x 1080p60
Formats	AV1, H.265 (HEVC), H.264
Typical Power	35W
Form Factor	HHHL, Single Slot



Enabling Interactive Streaming Services at Scale



Cost Per Channel<sup>6</sup>  
**\$50**  
(1080p60)

Power Per Channel<sup>7</sup>  
**1 Watt**  
(1080p60)

Bitrate Reduction Per Channel<sup>8</sup>  
Up to **52%**  
Bitrate Reduction vs. Software Implementation

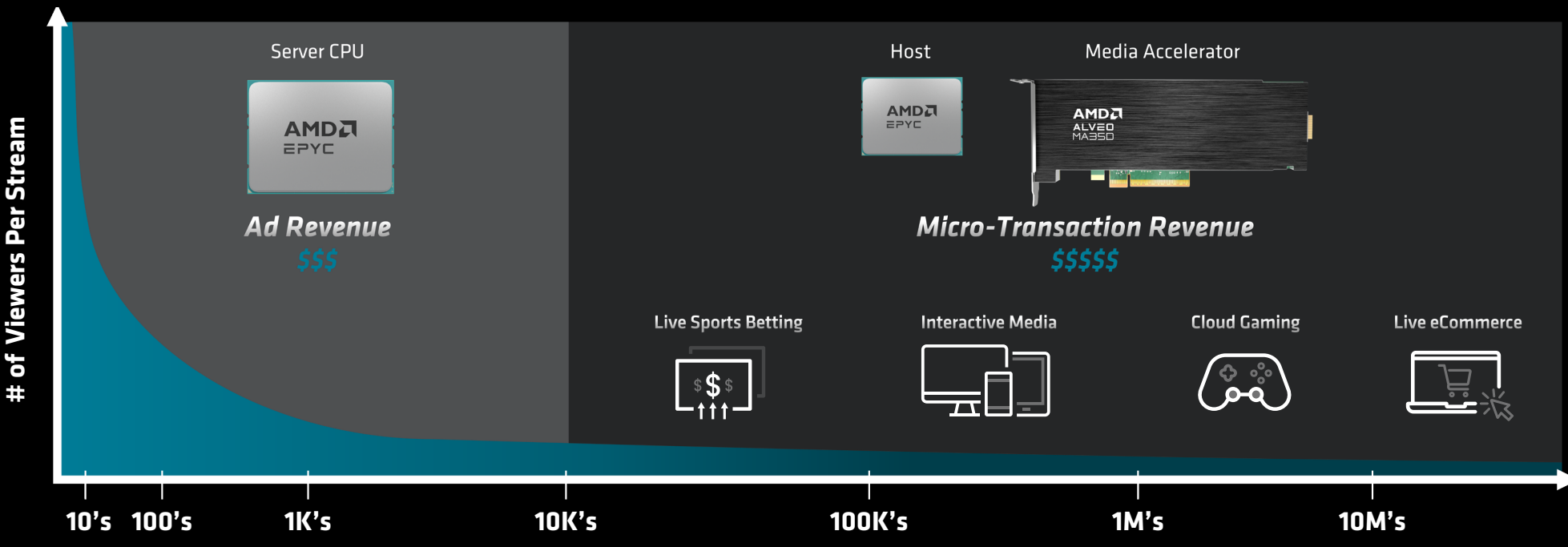
Alongside AMD EPYC™ for Diverse Transcoding Use Cases

**AMD EPYC**

CPU transcoding for live broadcasting and on-demand streaming (few ingest streams)

**AMD ALVEO MA35D**

CPU + Media Accelerator for high volume streaming, enabling new interactive media services



<sup>1</sup>Bluewave Consulting and Research, March 2022 CAGR based on 2021-2028

<sup>2</sup>SignalFire's Creator Economy Market Cap: <https://signalfire.com/blog/creator-economy/>

<sup>3</sup>AMD Estimates

<sup>4</sup>Publishers: Calculate Your All-in Costs To Run Cloud Gaming Infrastructure <https://parsec.app/blog/publishers-calculate-your-all-in-costs-to-run-cloud-gaming-infrastructure-on-aws-564559db3828>  
Age of data is 3 years from time of publish and may be subject to change.

<sup>5</sup>AMD Estimates

<sup>6</sup>In published specifications, the Alveo MA35D MSRP is \$1,595 supporting up to 32x 1080p60 streams.

<sup>7</sup>Typical power for 8 4K streams or 32 1080p60 streams estimated at 35W, based on preliminary testing and subject to change. 50W Total Thermal Design Power (TDP)

<sup>8</sup>Based on testing by AMD Labs in March 2023, using the VMAF scores of Alveo MA35D H.264 encode, H.265 encode, and AV1 encode compared to the VMAF scores of open source x264 VeryFast, X265 Medium, and X265 Slow SW models across (13) publicly available video files at various resolutions and bitrates. Actual results may vary. ALV-006