# VideoMost received US patent for ultra performance video codec based on machine learning

DUBAI, UNITED ARAB EMIRATES, April 18, 2024 /EINPresswire.com/ -- VideoMost Research, an R&D division of Dubai-based VideoMost company, group video communications software developer, announces receipt of the US patent for its innovative video compression technology based on the sketch concept, neural networks and machine learning.

According to Cisco market analytics over 80% of all global internet traffic is attributed to video. More than 90% of the content volume shared by users on social networks is video, 87% of marketers use video in their ad campaigns, and 95% of video messages are retained by the viewers. Global video traffic is constantly growing and video occupies a major share of content in all kinds of data transmission and storage systems.

Video compression software (video codecs) is widely used globally for video streaming, conferencing, messaging, social networking, video surveillance, digital television, file storage, online advertising and other applications. Where it concerns standard algorithms for compressing and decompressing (codec) video, the compression happens on the content provider's side (e.g. YouTube servers), while end-users' machines handle the decompressing.

The primary criteria for codec efficiency are the compression factor (rate), video quality, and required computing power (processor cycles). Hundreds of scientific, government and commercial organizations around the world have been improving these parameters for decades, including Google, Apple, Microsoft, Meta, Amazon, Adobe, Cisco and other manufacturers of communication software and equipment, as well as telecom operators in Europe, the United States, China, Japan, South Korea and other countries.

Video codecs became so hot that Hollywood shot a popular television series "Silicon Valley" with detailed story of a CA-based video codec startup Pied Piper that chronicles its struggles while facing competition from larger entities, including patent wars. It premiered on HBO in 2014 and concluded in 2019, running for a total of 53 episodes. The series was nominated for numerous accolades, including 5 consecutive Primetime Emmy Award nominations.

There are dozens of big players on the global video codecs market with different products. Most of these codecs, including all the ITU-T standards, are protected by hundreds of patents, combined in several patent pulls.

During the last 50 years, video compression factor (rate) has increased by only about 40% each ten years. This is too slow and market calls for a new video compression technology with dramatically higher efficiency factor. It is a global challenge, and new technology is required to save costs on building expensive networks and telecom infrastructure, including optical cables, cell towers, frequency spectrum, servers and storage.

[VideoMost Research](#) shifts the Claude Shannon Rate-distortion theory paradigm and offers fundamentally new concept of video coding based on sketch-video forming, neural networks and machine learning (ML). The new patented method increases video compression factor by about 3 times, not 40%, against the existing modern standards like H.265, VP9 and AV1, with the same video quality.

The VideoMost ML codec transforms incoming original video stream in the encoder into a sketch-video that consumes significantly less resources, and when decoded it restores video using a trained neural network. This "sketch focused" and ML-based innovative approach to encoding and decoding video data has been patented by VideoMost Research in the USA and other countries.

VideoMost ML Codec delivers significant reduction of video bitrate and storage costs and enables effective high quality video streaming via narrowband mobile communication channels. VideoMost claims that its video compression tech is robust to sudden disruptions in connectivity. When bandwidth is suddenly restricted, the video wouldn't freeze. VideoMost also said its approach is hardware-agnostic. ML-powered video codec enables more efficient streaming. Even minor improvements in video compression could save on bandwidth costs and deliver higher resolutions and framerates of content being streamed.

There are lots of applications to use the technology in B2B and B2C markets, including video portals, compact video storage, video conferencing, p2p and group calling apps, streaming platforms, game playing and cyber sport, movies and TV shows, news and clips, hosting data storage, and more.

VideoMost is looking for strategic and tech-savvy financial partners and venture capital to help further fund the ML codec development, improvement and distribution.

About the company

[SPIRIT DSP](#) ([www.spiritDSP.com](http://www.spiritDSP.com), VideoMost parent company) communication software products are licensed to global technology leaders including Apple, Adobe, ARM, AT&T, Avaya, Blizzard, BroadSoft, BT, China Mobile, Comera, Dialogic, Ericsson, Etisalat, HP, HTC, Huawei, Korea Telecom, Kyocera, LG U+, Mavenir, Mitel, Microsoft, MTS, NEC, Oracle, Polycom, Reliance Jio, Rostelecom, Samsung, Skype, Texas Instruments, Toshiba, Viber, ZTE, among more than 250 others.

VideoMost ([www.videomost.ae](www.videomost.ae)) enables telcos, service providers and software developers to deliver superior quality and secure self-hosted messaging and group video meeting services competing with Zoom/Teams to people, digital enterprises and governments.

VideoMost Research ([www.videomost.ai](www.videomost.ai)) is a deep tech R&D team of video codec and AI pros, with strong scientific leadership, over 40 patents, and accumulated 150 years of experience.

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