

THUNDERIMAGE HEIF ENCODER AMD ALVEO POWERS THUNDERIMAGE

INTRODUCTION

The vigorous development of smartphones and mobile applications has led to a sharp increase in the use of images, which has brought huge image storage and transmission costs, and continues to grow.

Compared with JPEG, HEIF can increase the compression rate by 57 under the same image quality, thereby greatly reducing the image storage and traffic cost of mobile APP. However, the high computational cost of HEIF hinders its large scale use.

DeePoly Technology's ThunderImage HEIF encoder uses AMD FPGAs to reduce the computational cost of HEIF solution, so that all mobile APPs can obtain the cost advantage of HEIF images.

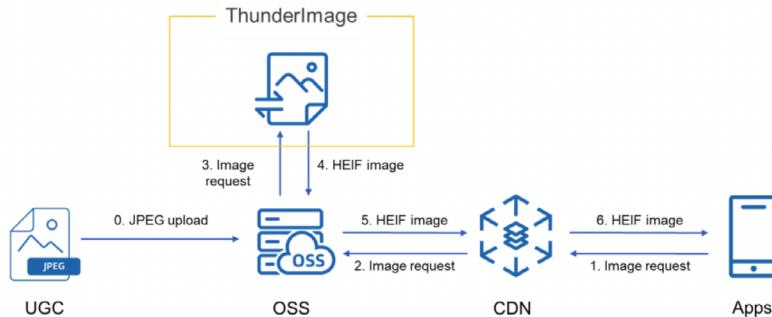


SOLUTION OVERVIEW

Working in partnership with AMD, DeePoly® ThunderImage works seamlessly on the local appliance with the AMD Alveo™ U200 Data Center Accelerator Card or the public cloud. Images would upload to the storage with the help of ThunderImage, the HEIF encoding cluster of the data center could shrink 5x of cluster size, get 20x better Latency and 5x TCO reduction at the same time.

KEY FEATURES

- 57% Lesser Cost (Storage and Bandwidth)
- 20x Better Latency
- 10x Better Concurrency
- 5x TCO Reduction



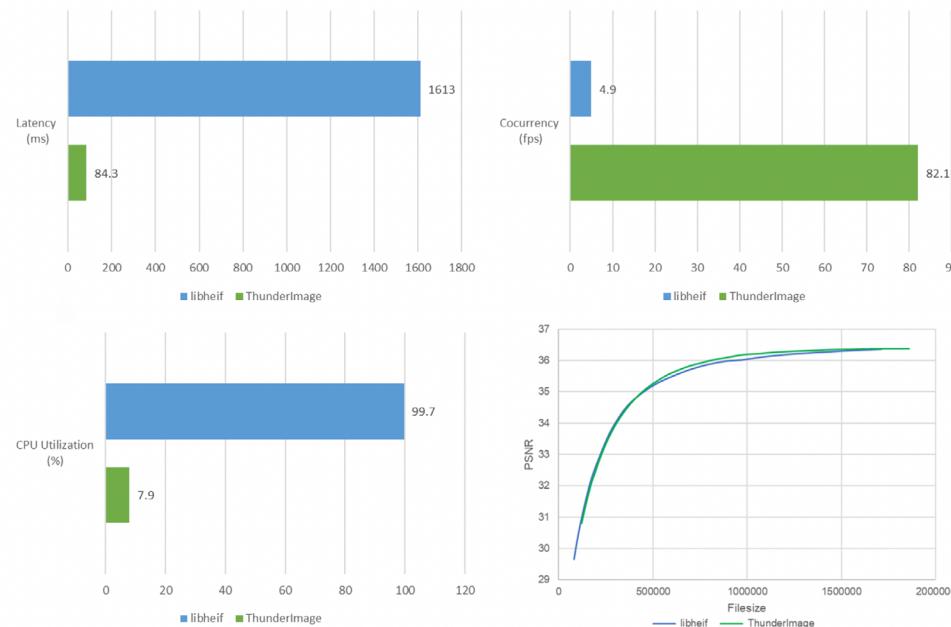
SOLUTION BENCHMARK

To cope with the increasingly heavy burden of HEIF image processing, ThunderImage HEIF encoder is the ultimate low cost and high performance solution.

The following shows a typical benchmark configuration for a CPU based JPEG to HEIF transcoding test

- Software libheif v1.6.2, CRF=21, Lossy
- Hardware CPU Xeon E5 2680v4 x 2, 256GB DDR4
- Testing images 1000 JPEG images:1920x1080, Q=90, Average Size is 370KB

The benchmark results are shown in Figure 2 Compare with the libheif solution ThunderImage HEIF Encoder achieved 20x better latency, 16x better concurrency with similar BD Rate performance



NEXT STEPS

- Learn more about [AMD Alveo accelerator cards](#)
- Learn more about [DeePoly Technology Inc.](#)
- Reach out to [ThunderImage sales](#)

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