SUCCESS BRIEF

Intel® Xeon® Processor E5 Family

Communications/Media

Performance for Data-Intensive Computing

Standing out from the crowd

Face.com boosts online face recognition service with Intel® Xeon® processor E5 family and Intel® Advanced Vector Extensions

face.com

"By optimizing our face recognition service for the Intel® Xeon® processor E5 family, we have significantly improved the capacity that can be achieved. The result is a better, faster experience for end users, with resources better prepared for future growth in demand for the service."

Yaniv Taigman
Chief Technology Officer and Co-Founder
Face.com

intel inside Xeon

Company

Established in 2007, Face.com offers a unique cloud-based image processing service that can quickly and automatically identify people's faces in photos. Face.com licenses the technology to several popular social networking sites to incorporate it into their infrastructure and offering to end users, as well as making it available to software developers through an application program interface (API). It also provides the technology to smartphone users through its KLIK* app, available on the iPhone*. When users take a picture, the app transmits the image data to Face.com's servers, which perform the calculations needed to identify who is in the shot in a matter of seconds.

Challenge

To provide real-time face recognition, Face.com's service relies on the processing capacity of servers within Face.com's own data center, or those of the customers the service is licensed to, to analyze large volumes of image data on a pixel-by-pixel basis. To preserve the speed and quality of the service, it needs reliable and responsive processing support. Within its own operations, Face.com expects significant growth in the volume of traffic to its servers once its KLIK app is officially launched. To cope with this increased demand, it needs the processing capacity available to scale up the service.

Solution

As a long-term user of Intel® processors, Face.com saw the forthcoming arrival of the Intel® Xeon® processor E5 family and Intel® Advanced Vector Extensions (Intel® AVX) instruction set as an opportunity to boost the performance of its service for its licensed customers and its KLIK app. It set up a trial to compare the performance of the new processor with that of existing models. Working with Intel's developer support team, Face.com optimized its face recognition processes to work effectively with the new hardware. In particular, it focused on modifying its code to harness the additional parallel bandwidth support Intel AVX provides for processor-intensive floating point calculations, which are a key part of its image analysis technology.

Benefits

By optimizing its face recognition processes to run on the Intel Xeon processor E5 family, Face.com achieved more than a 30 percent rise in the overall capacity of the service compared to its performance on the most recent generation of Intel Xeon processors 5600 series[1]. Each new CPU can process up to 14.7 million pixels per second as opposed to 11.2 million pixels per second on Intel Xeon processors 5600 series, significantly enhancing the throughput of images Face.com's service can process at a comparable cost.

The additional processing capacity this delivers has enabled Face.com to offer a faster and more responsive service to smartphone users and ensures it is well prepared for future growth of its user base. It can now also demonstrate to its licensed customers the performance benefits they can gain from running the service on the latest Intel processors.

Find the solution that's right for your organization. Contact your Intel representative, visit Intel's Business Success Stories for IT Managers (**www.intel.co.uk/Itcasestudies**) or explore the Intel.com IT Center (**www.intel.com/itcenter**).

[1] Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations, and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

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