



Researchers hypothesize that by offloading calculations from a central processing unit (CPU) to a graphics processing unit (GPU) designed for complex 3D and mathematical tasks, it could be possible to bump up Hadoop's performance. This is because GPUs can perform calculations 50 to 100 times faster than their CPU counterparts.

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Using GPU to speed up Hadoop is not a new concept. There have been projects in the past which combined the Hadoop of MapReduce approach with a GPU. For instance, the [Mars MapReduce-GPU project](#) managed a 1.5 to 16 times increase in performance in analyzing Web data and processing Web documents.

[An article](#) written by the research and development team of big data specialists [Altoros Systems Inc.](#), indicates that there is a demand for accelerating parallel computing systems with GPUs . The article also illustrates how organizations can try it in a large scale.

Hardware vendors such as Cray have released machines