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DISTRIBUTED SYSTEMS (ASSIGNMENT 1)

Review of Beowulf Cluster:

According to Don Becker, Beowulf Clusters are scalable performance clusters based on commodity hardware, on a private system network, with open source software (Linux) infrastructure.  
  
Each consists of a cluster of PCs or workstations dedicated to running high-performance computing tasks. The nodes in the cluster do not sit on people's desks; they are dedicated to running cluster jobs. It is usually connected to the outside world through only a single node.

Else, according to Thomas Sterling and Donald Becker at NASA, a Beowulf cluster is a [computer cluster](https://en.wikipedia.org/wiki/Computer_cluster) of what are normally identical, commodity-grade computers networked into a small [local area network](https://en.wikipedia.org/wiki/Local_area_network) with libraries and programs installed which allow processing to be shared among them. The result is a high-performance [parallel computing](https://en.wikipedia.org/wiki/Parallel_computing) cluster from inexpensive [personal computer](https://en.wikipedia.org/wiki/Personal_computer) hardware.

Jacek Radajewski and Douglas Eadline defined Beowulf as a multi-computer [architecture](https://en.wikipedia.org/wiki/Computer_architecture), which can be used for [parallel computations](https://en.wikipedia.org/wiki/Parallel_computation). It is a system, which usually consists of one server node, and one or more client nodes connected via [Ethernet](https://en.wikipedia.org/wiki/Ethernet) or some other network. It is a system built using commodity hardware components, like any PC capable of running a [Unix-like](https://en.wikipedia.org/wiki/Unix-like) operating system, with standard Ethernet adapters, and switches.

According to the above citations it is clearly noticed that, A Beowulf cluster is a 2 or more computers connected together using traditional 10/100 base T , gigabyte Ethernet and or fiber optic network media to a switch to combine all the processing power from the computers to process one problem.

References:

* *Beowulf Cluster Computing With Linux* by Thomas Lawrence Sterling 2001.
* Becker, Donald J and Sterling, Thomas and Savarese, Daniel and Dorband, John E and Ranawak, Udaya A and Packer, Charles V, "BEOWULF: A parallel workstation for scientific computation", in Proceedings, International Conference on Parallel Processing vol. 95, (1995). URL <http://www.phy.duke.edu/~rgb/brahma/Resources/beowulf/papers/ICPP95/icpp95.html>
* See [Francis Barton Gummere](https://en.wikipedia.org/wiki/Francis_Barton_Gummere)'s 1909 translation, reprinted (for example) in [*Beowulf*](https://books.google.com/books?id=ZCA4DbBCUlAC)*. Francis B. Gummere (translator). Hayes Barton Press (published c. 1910). 1909. p. 20.* [*ISBN*](https://en.wikipedia.org/wiki/International_Standard_Book_Number)[*9781593773700*](https://en.wikipedia.org/wiki/Special:BookSources/9781593773700)*. Retrieved 2014-01-16.*