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Equal cost multi pathing in high power systems with TRILL

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The work is devoted to the result of the creating a first module of the data processing center at the Joint Institute for Nuclear Research for modeling and processing experiments. The issues related to handling the enormous data flow from the LHC experimental installations and troubles of distributed storages are considered. The article presents a hierarchical diagram of the network farm and a basic model of the network architecture levels. Protocols for disposal full mesh network topologies are considered. Two monitoring systems of the network segment and download of the data channels are described. The former is a typical packet software; the latter is a newly designed software with an application to graph drawing. The data are presented which were obtained experimentally from 40G interfaces through by each monitoring systems, their behavior is analyzed. The result is that the discrepancy of experimental data with theoretical predictions to be equal to the weight balancing of the traffic when transmitting the batch information over the equivalent edges of the graph. It is shown that the distribution of the traffic over such routes is of arbitrary and inconsistent with the patent formula character. The conclusion analyzes the issues of the traffic behavior under extreme conditions. There are two main questions to be answered. Which way does the distribution of data transfer over four equivalent routes occur? What happens if overload takes place? An assumption is made of the need to compare the traffic behavior in various data centers with the help of the traffic generators.

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