Fault-tolerant computer system of data storage

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According to research company IDC for the past years the amount of stored data in the corporate segment in the world has increased in ten times and amounted to $1.8 \cdot 2^{60}$ byte, further intensive growth is predicted. At the same time, every year requirements in terms of data availability and uninterrupted operation of the applications are growing. Modern enterprises always have the applications, which work should not stop even for a minute: it can be, for example, applications, serving the customer`s accounts or internal database of counting clients. There arises a difficult task: how to keep such huge volumes of information in working condition. Before we answer this question it is necessary to explore possible reasons for the unavailability of data, then it is possible to formulate requirements for the various types of data and then look for a solution in the field of backup.

Keywords: *data integrity, availability, privacy, backup, restore data, fault tolerance.*

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