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Network Traffic Analysis using HADOOP Architecture

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This report introduced a network traffic analysis tool using HADOOP architecture.By collecting the traffic information of the egress router in a campus or an institute, the network traffic analysis tool stored the traffic information which includes start time, end time, source IP, destination IP, Byte, Packet, Flow and etc. to HDFS which is a distributed file system as well as the RRD. In the frontend, the tool using rrdtool graph to draw graphs of the network flow trend chart, to get the details of the traffic information just click on the trend chart and there will be an detailed graph on the network flow information drawing by highstock which read data from HDFS, the user can also select a timeslot or a time window to get the netflow information which is calculated by the Map-reduce program running background. Meanwhile, by providing the IP specially related one HEP experiment, the tool can give the traffic information related to the specially HEP experiment, now it is used in collecting the network traffic information of DYB,YBJ,CMS and ATLAS, the network traffic information can be shown in realtime as well as the histroic record, and once you put the mouse on the graph, the timeslot and the netflow traffic information will be shown on the graph.

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