Big data: architectures and data analytics

The BigData@Polito environment
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- The BigData@Polito cluster has
  - A set of 30 servers running Hadoop
  - An **Access Gateway** server used to interact with the Hadoop cluster
    - Submit jobs/execute MapReduce applications
    - Submit hdfs commands
    - Analyze the log files from command line
    - The access gateway node is `bigdatalab.polito.it`
The BigData@Polito environment – Execute an application (1)

- Execute a MapReduce Application (i.e., submit a job)
  - Copy the jar file containing your application from your personal workstation (or the workstation of LABINF) in the local file system of bigdatalab.polito.it
    - Use scp or an ftp application (e.g., FileZilla)
  - Copy the input data of your application from the local drive of your personal workstation in the HDFS file system of the cluster
    - Use HUE web interface
      - https://bigdatalab.polito.it:8080

The BigData@Polito environment – Execute an application (2)

- Connect to the bigdatalab.polito.it server by using the ssh command
- Use the hadoop command from the shell of bigdatalab.polito.it to submit the job
  - Specify the name of the jar file, the name of the input (HDFS) data, the name of output folder, the parameters/arguments of the application