**Components of Hadoop 2.x**

These are the components of Hadoop 2.x:-

1. **High Availability**

In this there are two namanode: Active Namenode and Stand-By Namenode If Active namenode goes down Stand-By Namenode will act as Active Namenode and whole cluster will be accessible, this is high availability. This was lacking in Hadoop 1.x which was having one NameNode and it fails whole cluster was inaccessible. Active NameNode and Stand-By NameNode both share the same Edit log file to have the block report and other detail so that if one goes down other can act accordingly.

1. **HDFS Federation**

In HDFS Federation there are multiple namespace. As we can have more than two namenode so it is possible to have more than one namespace as well. Suppose we have divided our HDFS in to two directory, In this we can make one namenode acting for one directory and other namenode acting for other directory to make the system smooth running and there will be no overhead on one name node.

1. **YARN(Yet Another Resource Negotiator**

Also known as Map Reduce version 2.

Hadoop 2.x has remove old daemon which were there in Hadoop 1.x: Job Tracker and Task Tracker

In Hadoop 2.x we have: Resource manager and Node manager.

**Resource Manager** is the master of the infrastructure, one for each cluster. It has many services and resource scheduler is one of them and most important which decide how to assign resource.

**Node manager** is the slave of the infrastructure and many for one cluster.

It sends heart beat to Resource manager periodically to say that it is alive and blocks report for the data. Some portion of the space of the container is used for node manager for running the program.