



问一个问题啊 我hbase有3个节点 三个节点上都有数据 我如果删除一个节点，会影响数据完整性吗 这个节点上的数据，在其他节点上应该还有备份吧

HBase的数据依赖的底层存储是HDFS，所以这个问题有两种可能性：

1、 单纯的减少、增加HBase节点，而不减少机器，那么对数据的完整性没有任何影响；

2、 减少HBase节点，并同时也减掉当前这台机器，那么就要看HDFS对应的副本数是几份了：

如果是1份副本，如果减掉一台机器，那么肯定会有一部分的数据丢失而没有办法找回；

如果是3份副本，如果减掉一台机器，所丢失的数据信息，HDFS自身会通过其他已有的副本进行自动的检索和恢复，这就是多副本冗余的好处。

LSM树

Group name: general

Commands: status, table\_help, version, whoami

Group name: ddl

Commands: alter, alter\_async, alter\_status, create, describe, disable, disable\_all, drop, drop\_all, enable, enable\_all, exists, get\_table, is\_disabled, is\_enabled, list, locate\_region, show\_filters

Group name: namespace

Commands: alter\_namespace, create\_namespace, describe\_namespace, drop\_namespace, list\_namespace, list\_namespace\_tables

Group name: dml

Commands: append, count, delete, deleteall, get, get\_counter, get\_splits, incr, put, scan, truncate, truncate\_preserve

Group name: tools

Commands: assign, balance\_switch, balancer, balancer\_enabled, catalogjanitor\_enabled, catalogjanitor\_run, catalogjanitor\_switch, close\_region, compact, compact\_rs, flush, major\_compact, merge\_region, move, normalize, normalizer\_enabled, normalizer\_switch, split, splitormerge\_enabled, splitormerge\_switch, trace, unassign, wal\_roll, zk\_dump

Group name: replication

Commands: add\_peer, append\_peer\_tableCFs, disable\_peer, disable\_table\_replication, enable\_peer, enable\_table\_replication, get\_peer\_config, list\_peer\_configs, list\_peers, list\_replicated\_tables, remove\_peer, remove\_peer\_tableCFs, set\_peer\_tableCFs, show\_peer\_tableCFs

Group name: snapshots

Commands: clone\_snapshot, delete\_all\_snapshot, delete\_snapshot, delete\_table\_snapshots, list\_snapshots, list\_table\_snapshots, restore\_snapshot, snapshot

Group name: configuration

Commands: update\_all\_config, update\_config

Group name: quotas

Commands: list\_quotas, set\_quota

Group name: security

Commands: grant, list\_security\_capabilities, revoke, user\_permission

Group name: procedures

Commands: abort\_procedure, list\_procedures

Group name: visibility labels

Commands: add\_labels, clear\_auths, get\_auths, list\_labels, set\_auths, set\_visibility

