wget <http://ftp.tc.edu.tw/pub/Apache/hbase/stable/hbase-0.98.9-hadoop2-bin.tar.gz>+

In hbase-env.sh

if we already exist zookeeper and want to directly use that

modify below property

export HBASE\_MANAGES\_ZK=false

 /etc/security/limits.conf

add below line

hadoop - nofile 32768

hadoop - nproc 32000

if limit conf low

that meet issue

INFO org.apache.hadoop.hdfs.DFSClient: Exception increateBlockOutputStream java.io.EOFException

INFO org.apache.hadoop.hdfs.DFSClient: Abandoning block blk\_-6935524980745310745\_1391901

WARN org.apache.hadoop.hdfs.server.datanode.DataNode:

Disk-related IOException in BlockReceiver constructor. Cause is java.io.IOException: Too many open files

at java.io.UnixFileSystem.createFileExclusively(Native Method)

at java.io.File.createNewFile(File.java:883)

map-reduce-site.xml, tune Hbase perf, suggest false

mapreduce.map.speculative true If true, then multiple instances of some map tasks may be executed in parallel.

mapreduce.reduce.speculative true If true, then multiple instances of some reduce tasks may be executed in parallel.

 you should be able to connect to the UI for the Master <http://node-a.example.com:16610/> or the secondary master at <http://node-b.example.com:16610/> for the secondary master, using a web browser. If you can connect via localhost but not from another host, check your firewall rules. You can see the web UI for each of the RegionServers at port 16630 of their IP addresses, or by clicking their links in the web UI for the Master.

NTP

The clocks on cluster nodes should be synchronized. A small amount of variation is acceptable, but larger amounts of skew can cause erratic and unexpected behavior. Time synchronization is one of the first things to check if you see unexplained problems in your cluster. It is recommended that you run a Network Time Protocol (NTP) service, or another time-synchronization mechanism, on your cluster, and that all nodes look to the same service for time synchronization. See the Basic NTP Configuration at The Linux Documentation Project (TLDP) to set up NTP.

<http://yankaycom-wordpress.stor.sinaapp.com/hbase/book.html?q=/wp-content/hbase/book.html#hbase.site>

If you already install lzo, can ignore this steps

http://matrix-lisp.github.io/blog/2014/07/07/hadoop-lzo-install/

-----------------------------------------------------------------------

**In lzo-2.08 build code**

wget <http://www.oberhumer.com/opensource/lzo/download/lzo-2.08.tar.gz>

export CFLAGS=-m64

./configure -enable-shared -prefix=/home/hadoopuser/hadoop/hadoop-2.6.0/lzo/

make

sudo make install

cp /home/hadoopuser/hadoop/hadoop-2.6.0/lzo/lib/\* /usr/lib/

cp /home/hadoopuser/hadoop/hadoop-2.6.0/lzo/lib/\* /usr/lib64/

cp -r /home/hadoopuser/hadoop/hadoop-2.6.0/lzo/include/\* /usr/include/

----------------------------------------------------------------------

**In lzop**

wget http://www.lzop.org/download/lzop-1.03.tar.gz

tar -zxvf lzop-1.03.tar.gz

cd lzop-1.03

./configure -enable-shared -prefix=/home/hadoopuser/hadoop/hadoop-2.6.0/lzop/

make && make install

cd /usr/bin

ln -s -f /home/hadoopuser/hadoop/hadoop-2.6.0/lzop/bin/lzop

Test bin, lzop should can compress

lzop <file>

--------------------------------------------------------------------------

**In twitter hadoop**

git clone https://github.com/twitter/hadoop-lzo.git

可以修改pom.xml来调整自己的hadoop版本, 找到hadoop.current.version配置项进行修改

export CFLAGS=-m64

export CXXFLAGS=-m64

export C\_INCLUDE\_PATH=/home/hadoopuser/hadoop/hadoop-2.6.0/lzo/include

export LIBRARY\_PATH=/home/hadoopuser/hadoop/hadoop-2.6.0/lzo/lib

mvn clean package -Dmaven.test.skip=true

cp -r target/native/Linux-amd64-64 /home/hadoopuser/hadoop/hadoop-2.6.0/lib/native/

cp target/hadoop-lzo-0.4.20-SNAPSHOT.jar /home/hadoopuser/hadoop/hadoop-2.6.0/share/hadoop/common/

hadoop-env.sh

# 添加如下配置项

export JAVA\_LIBRARY\_PATH=$HADOOP\_HOME/lib/native/Linux-amd64-64

export LD\_LIBRARY\_PATH=$HADOOP\_HOME/lzo/lib

core-site.xml

<property>

<name>io.compression.codecs</name>

<value>org.apache.hadoop.io.compress.GzipCodec,org.apache.hadoop.io.compress.DefaultCodec,com.hadoop.compression.lzo.LzoCodec,com.hadoop.compression.lzo.LzopCodec,org.apache.hadoop.io.compress.BZip2Codec</value>

</property>

<property>

<name>io.compression.codec.lzo.class</name>

<value>com.hadoop.compression.lzo.LzoCodec</value>

</property>

mapred-site.xml

<property>

<name>mapred.compress.map.output</name>

<value>true</value>

</property>

<property>

<name>mapred.map.output.compression.codec</name>

<value>com.hadoop.compression.lzo.LzoCodec</value>

</property>

<property>

<name>mapred.child.env</name>

<value>LD\_LIBRARY\_PATH=/usr/local/cloud/hadoop/lzo/lib</value>

</property>

If use SPARK

SPARK\_LIBRARY\_PATH=$SPARK\_LIBRARY\_PATH:/path/to/your/hadoop-lzo/libs/native

SPARK\_CLASSPATH=$SPARK\_CLASSPATH:/path/to/your/hadoop-lzo/java/libs

If HBase need lzo compression, then should copy this lib to HBase folder

cp hadoop-lzo.jar $HBASE\_HOME/lib/

mkdir  $HBASE\_HOME /lib/native

cp –rf lzo/Linux-amd64-64/ $HBASE\_HOME /lib/native

* check Lzo work

check if LZO works

$HBASE\_HOME/bin/hbase shell

hbase(main):001:0> create 'mytable\_LZO', {NAME => 'colfam1', COMPRESSION => 'LZO'}

0 row(s) in 1.8000 seconds

!describe 'mytable\_LZO'

DESCRIPTION ENABLED

'mytable\_LZO', {NAME => 'colfam1', DATA\_BLOCK\_ENCODING => 'NONE', BLOOMFILTER => 'NONE', REPLICATION\_SCOPE => true

'0', VERSIONS => '3', COMPRESSION => 'LZO', MIN\_VERSIONS => '0', TTL => '2147483647', KEEP\_DELETED\_CELLS => 'f

alse', BLOCKSIZE => '65536', IN\_MEMORY => 'false', ENCODE\_ON\_DISK => 'true', BLOCKCACHE => 'true'}

1 row(s) in 0.1540 seconds

check hbase logs for errors

tail -f $HBASE\_HOME/logs/\*.log

* Hbase check each node time, can use crontab to regular sync

ntpdate

time.windows.com

asia.pool.ntp.org

中科院授时中心(西安)

210.72.145.44

网通授时中心(北京)

219.158.14.130

Download phoenix

wget http://ftp.tc.edu.tw/pub/Apache/phoenix/phoenix-4.2.2/bin/phoenix-4.2.2-bin.tar.gz

copy phoenix-<version>-server.jar to all nodes

then start-hbase

start-hbase.sh

Java example

http://phoenix.apache.org/faq.html

http://phoenix.apache.org/language/index.html#upsert\_values

A GUI SQL Tool

http://phoenix.apache.org/download.html