hadoop实验详解

环境：rhel7.3虚拟机6台，关闭防火墙，SELinux，配置好yum源

地址：node01.tedu.cn 192.168.4.1

node02.tedu.cn 192.168.4.2

node03.tedu.cn 192.168.4.3

master.tedu.cn 192.168.4.4

test01.tedu.cn 192.168.4.5

test02.tedu.cn 192.168.4.6

#基础准备，修改各台虚拟机的/etc/hosts文件，保证直通解析，必须操作，集群节点用dns无效

##单机版测试

#安装jdk环境

[root@test01 ~]# yum -y install java-1.8.0-openjdk-devel

[root@test01 ~]# java -version

openjdk version "1.8.0\_102"

OpenJDK Runtime Environment (build 1.8.0\_102-b14)

OpenJDK 64-Bit Server VM (build 25.102-b14, mixed mode)

[root@test01 ~]# jps

1763 Jps

#确认jdk环境已经安装

[root@test01 ~]# ls

anaconda-ks.cfg hadoop.tar

[root@test01 ~]# tar -xf hadoop.tar

[root@test01 ~]# ls

anaconda-ks.cfg hadoop-2.7.3.tar.gz hadoop.tar kafka\_2.10-0.10.2.1.tgz zookeeper-3.4.10.tar.gz

[root@test01 ~]# tar -xf hadoop-2.7.3.tar.gz

[root@test01 ~]# ls

anaconda-ks.cfg hadoop-2.7.3 hadoop-2.7.3.tar.gz hadoop.tar kafka\_2.10-0.10.2.1.tgz zookeeper-3.4.10.tar.gz

[root@test01 ~]# mv hadoop-2.7.3 /usr/local/hadoop

[root@test01 ~]# ls /usr/local/hadoop/

bin etc include lib libexec LICENSE.txt NOTICE.txt README.txt sbin share

#设置java环境变量方法1

[root@test01 ~]# /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.102-4.b14.el7.x86\_64/jre/bin/java -version

openjdk version "1.8.0\_102"

OpenJDK Runtime Environment (build 1.8.0\_102-b14)

OpenJDK 64-Bit Server VM (build 25.102-b14, mixed mode)

/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.102-4.b14.el7.x86\_64/jre/bin/java -version

openjdk version "1.8.0\_102"

OpenJDK Runtime Environment (build 1.8.0\_102-b14)

OpenJDK 64-Bit Server VM (build 25.102-b14, mixed mode)

[root@test01 ~]# export JAVA\_HOME='/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.102-4.b14.el7.x86\_64/jre'

[root@test01 ~]# echo $JAVA\_HOME

/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.102-4.b14.el7.x86\_64/jre

[root@test01 ~]# /usr/local/hadoop/bin/hadoop version

Hadoop 2.7.3

Subversion https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff

Compiled by root on 2016-08-18T01:41Z

Compiled with protoc 2.5.0

From source with checksum 2e4ce5f957ea4db193bce3734ff29ff4

This command was run using /usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar

#第二种

[root@test01 ~]# tail -1 /etc/profile

export JAVA\_HOME='/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.102-4.b14.el7.x86\_64/jre'

#重启系统

[root@test01 ~]# (a=10;echo $a)

10

[root@test01 ~]# echo $a

#子shell变量

#启动hadoop的时候建议采用进程变量，推荐修改配置文件

[root@test01 ~]# sed -n '25p' /usr/local/hadoop/etc/hadoop/hadoop-env.sh export JAVA\_HOME="/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.102-4.b14.el7.x86\_64/jre"

[root@test01 ~]# /usr/local/hadoop/bin/hadoop version

Hadoop 2.7.3

Subversion https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff

Compiled by root on 2016-08-18T01:41Z

Compiled with protoc 2.5.0

From source with checksum 2e4ce5f957ea4db193bce3734ff29ff4

This command was run using /usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar

[root@test01 ~]# sed -n '33p' /usr/local/hadoop/etc/hadoop/hadoop-env.sh export HADOOP\_CONF\_DIR='/usr/local/hadoop/etc/hadoop/'

#修改hadoop默认配置文件路径

##测试数据分析

[root@test01 ~]# mkdir /usr/local/hadoop/input

[root@test01 ~]# mv /usr/local/hadoop/\*.txt /usr/local/hadoop/input/

[root@test01 ~]# ls /usr/local/hadoop/input/

LICENSE.txt NOTICE.txt README.txt

[root@test01 ~]# cd /usr/local/hadoop/

[root@test01 hadoop]# ./bin/hadoop jar share/hadoop/mapreduce/hadoop-mapreduce-examples-2.7.3.jar wordcount input output

18/01/27 16:07:59 INFO Configuration.deprecation: session.id is deprecated. Instead, use dfs.metrics.session-id

18/01/27 16:07:59 INFO jvm.JvmMetrics: Initializing JVM Metrics with processName=JobTracker, sessionId=

18/01/27 16:08:00 INFO input.FileInputFormat: Total input paths to process : 3

18/01/27 16:08:00 INFO mapreduce.JobSubmitter: number of splits:3

18/01/27 16:08:00 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_local923819859\_0001

18/01/27 16:08:00 INFO mapreduce.Job: The url to track the job: http://localhost:8080/

18/01/27 16:08:00 INFO mapreduce.Job: Running job: job\_local923819859\_0001

18/01/27 16:08:00 INFO mapred.LocalJobRunner: OutputCommitter set in config null

18/01/27 16:08:00 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:08:00 INFO mapred.LocalJobRunner: OutputCommitter is org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter

18/01/27 16:08:00 INFO mapred.LocalJobRunner: Waiting for map tasks

18/01/27 16:08:00 INFO mapred.LocalJobRunner: Starting task: attempt\_local923819859\_0001\_m\_000000\_0

18/01/27 16:08:01 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:08:01 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:08:01 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/LICENSE.txt:0+84854

18/01/27 16:08:01 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:08:01 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:08:01 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:08:01 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:08:01 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:08:01 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:08:01 INFO mapred.LocalJobRunner:

18/01/27 16:08:01 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:08:01 INFO mapred.MapTask: Spilling map output

18/01/27 16:08:01 INFO mapred.MapTask: bufstart = 0; bufend = 132735; bufvoid = 104857600

18/01/27 16:08:01 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26164916(104659664); length = 49481/6553600

18/01/27 16:08:01 INFO mapreduce.Job: Job job\_local923819859\_0001 running in uber mode : false

18/01/27 16:08:01 INFO mapreduce.Job: map 0% reduce 0%

18/01/27 16:08:01 INFO mapred.MapTask: Finished spill 0

18/01/27 16:08:01 INFO mapred.Task: Task:attempt\_local923819859\_0001\_m\_000000\_0 is done. And is in the process of committing

18/01/27 16:08:02 INFO mapred.LocalJobRunner: map

18/01/27 16:08:02 INFO mapred.Task: Task 'attempt\_local923819859\_0001\_m\_000000\_0' done.

18/01/27 16:08:02 INFO mapred.LocalJobRunner: Finishing task: attempt\_local923819859\_0001\_m\_000000\_0

18/01/27 16:08:02 INFO mapred.LocalJobRunner: Starting task: attempt\_local923819859\_0001\_m\_000001\_0

18/01/27 16:08:02 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:08:02 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:08:02 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/NOTICE.txt:0+14978

18/01/27 16:08:02 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:08:02 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:08:02 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:08:02 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:08:02 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:08:02 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:08:02 INFO mapred.LocalJobRunner:

18/01/27 16:08:02 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:08:02 INFO mapred.MapTask: Spilling map output

18/01/27 16:08:02 INFO mapred.MapTask: bufstart = 0; bufend = 20803; bufvoid = 104857600

18/01/27 16:08:02 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26207672(104830688); length = 6725/6553600

18/01/27 16:08:02 INFO mapred.MapTask: Finished spill 0

18/01/27 16:08:02 INFO mapred.Task: Task:attempt\_local923819859\_0001\_m\_000001\_0 is done. And is in the process of committing

18/01/27 16:08:02 INFO mapred.LocalJobRunner: map

18/01/27 16:08:02 INFO mapred.Task: Task 'attempt\_local923819859\_0001\_m\_000001\_0' done.

18/01/27 16:08:02 INFO mapred.LocalJobRunner: Finishing task: attempt\_local923819859\_0001\_m\_000001\_0

18/01/27 16:08:02 INFO mapred.LocalJobRunner: Starting task: attempt\_local923819859\_0001\_m\_000002\_0

18/01/27 16:08:02 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:08:02 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:08:02 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/README.txt:0+1366

18/01/27 16:08:02 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:08:02 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:08:02 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:08:02 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:08:02 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:08:02 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:08:02 INFO mapred.LocalJobRunner:

18/01/27 16:08:02 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:08:02 INFO mapred.MapTask: Spilling map output

18/01/27 16:08:02 INFO mapred.MapTask: bufstart = 0; bufend = 2055; bufvoid = 104857600

18/01/27 16:08:02 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26213684(104854736); length = 713/6553600

18/01/27 16:08:02 INFO mapred.MapTask: Finished spill 0

18/01/27 16:08:02 INFO mapred.Task: Task:attempt\_local923819859\_0001\_m\_000002\_0 is done. And is in the process of committing

18/01/27 16:08:02 INFO mapred.LocalJobRunner: map

18/01/27 16:08:02 INFO mapred.Task: Task 'attempt\_local923819859\_0001\_m\_000002\_0' done.

18/01/27 16:08:02 INFO mapred.LocalJobRunner: Finishing task: attempt\_local923819859\_0001\_m\_000002\_0

18/01/27 16:08:02 INFO mapred.LocalJobRunner: map task executor complete.

18/01/27 16:08:02 INFO mapred.LocalJobRunner: Waiting for reduce tasks

18/01/27 16:08:02 INFO mapred.LocalJobRunner: Starting task: attempt\_local923819859\_0001\_r\_000000\_0

18/01/27 16:08:02 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:08:02 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:08:02 INFO mapred.ReduceTask: Using ShuffleConsumerPlugin: org.apache.hadoop.mapreduce.task.reduce.Shuffle@5e8c8d59

18/01/27 16:08:02 INFO reduce.MergeManagerImpl: MergerManager: memoryLimit=363285696, maxSingleShuffleLimit=90821424, mergeThreshold=239768576, ioSortFactor=10, memToMemMergeOutputsThreshold=10

18/01/27 16:08:02 INFO reduce.EventFetcher: attempt\_local923819859\_0001\_r\_000000\_0 Thread started: EventFetcher for fetching Map Completion Events

18/01/27 16:08:02 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of map attempt\_local923819859\_0001\_m\_000001\_0 decomp: 11388 len: 11392 to MEMORY

18/01/27 16:08:02 INFO reduce.InMemoryMapOutput: Read 11388 bytes from map-output for attempt\_local923819859\_0001\_m\_000001\_0

18/01/27 16:08:02 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size: 11388, inMemoryMapOutputs.size() -> 1, commitMemory -> 0, usedMemory ->11388

18/01/27 16:08:02 WARN io.ReadaheadPool: Failed readahead on ifile

EBADF: Bad file descriptor

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posix\_fadvise(Native Method)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posixFadviseIfPossible(NativeIO.java:267)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX$CacheManipulator.posixFadviseIfPossible(NativeIO.java:146)

at org.apache.hadoop.io.ReadaheadPool$ReadaheadRequestImpl.run(ReadaheadPool.java:206)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)

at java.lang.Thread.run(Thread.java:745)

18/01/27 16:08:02 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of map attempt\_local923819859\_0001\_m\_000002\_0 decomp: 1832 len: 1836 to MEMORY

18/01/27 16:08:02 INFO reduce.InMemoryMapOutput: Read 1832 bytes from map-output for attempt\_local923819859\_0001\_m\_000002\_0

18/01/27 16:08:02 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size: 1832, inMemoryMapOutputs.size() -> 2, commitMemory -> 11388, usedMemory ->13220

18/01/27 16:08:02 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of map attempt\_local923819859\_0001\_m\_000000\_0 decomp: 29362 len: 29366 to MEMORY

18/01/27 16:08:02 INFO reduce.InMemoryMapOutput: Read 29362 bytes from map-output for attempt\_local923819859\_0001\_m\_000000\_0

18/01/27 16:08:02 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size: 29362, inMemoryMapOutputs.size() -> 3, commitMemory -> 13220, usedMemory ->42582

18/01/27 16:08:02 WARN io.ReadaheadPool: Failed readahead on ifile

EBADF: Bad file descriptor

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posix\_fadvise(Native Method)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posixFadviseIfPossible(NativeIO.java:267)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX$CacheManipulator.posixFadviseIfPossible(NativeIO.java:146)

at org.apache.hadoop.io.ReadaheadPool$ReadaheadRequestImpl.run(ReadaheadPool.java:206)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)

at java.lang.Thread.run(Thread.java:745)

18/01/27 16:08:02 INFO reduce.EventFetcher: EventFetcher is interrupted.. Returning

18/01/27 16:08:02 INFO mapred.LocalJobRunner: 3 / 3 copied.

18/01/27 16:08:02 INFO reduce.MergeManagerImpl: finalMerge called with 3 in-memory map-outputs and 0 on-disk map-outputs

18/01/27 16:08:02 WARN io.ReadaheadPool: Failed readahead on ifile

EBADF: Bad file descriptor

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posix\_fadvise(Native Method)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posixFadviseIfPossible(NativeIO.java:267)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX$CacheManipulator.posixFadviseIfPossible(NativeIO.java:146)

at org.apache.hadoop.io.ReadaheadPool$ReadaheadRequestImpl.run(ReadaheadPool.java:206)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)

at java.lang.Thread.run(Thread.java:745)

18/01/27 16:08:02 INFO mapred.Merger: Merging 3 sorted segments

18/01/27 16:08:02 INFO mapred.Merger: Down to the last merge-pass, with 3 segments left of total size: 42560 bytes

18/01/27 16:08:02 INFO reduce.MergeManagerImpl: Merged 3 segments, 42582 bytes to disk to satisfy reduce memory limit

18/01/27 16:08:02 INFO reduce.MergeManagerImpl: Merging 1 files, 42582 bytes from disk

18/01/27 16:08:02 INFO reduce.MergeManagerImpl: Merging 0 segments, 0 bytes from memory into reduce

18/01/27 16:08:02 INFO mapred.Merger: Merging 1 sorted segments

18/01/27 16:08:02 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of total size: 42571 bytes

18/01/27 16:08:02 INFO mapred.LocalJobRunner: 3 / 3 copied.

18/01/27 16:08:02 INFO Configuration.deprecation: mapred.skip.on is deprecated. Instead, use mapreduce.job.skiprecords

18/01/27 16:08:02 INFO mapred.Task: Task:attempt\_local923819859\_0001\_r\_000000\_0 is done. And is in the process of committing

18/01/27 16:08:02 INFO mapred.LocalJobRunner: 3 / 3 copied.

18/01/27 16:08:02 INFO mapred.Task: Task attempt\_local923819859\_0001\_r\_000000\_0 is allowed to commit now

18/01/27 16:08:02 INFO output.FileOutputCommitter: Saved output of task 'attempt\_local923819859\_0001\_r\_000000\_0' to file:/usr/local/hadoop/output/\_temporary/0/task\_local923819859\_0001\_r\_000000

18/01/27 16:08:02 INFO mapred.LocalJobRunner: reduce > reduce

18/01/27 16:08:02 INFO mapred.Task: Task 'attempt\_local923819859\_0001\_r\_000000\_0' done.

18/01/27 16:08:02 INFO mapred.LocalJobRunner: Finishing task: attempt\_local923819859\_0001\_r\_000000\_0

18/01/27 16:08:02 INFO mapred.LocalJobRunner: reduce task executor complete.

18/01/27 16:08:02 INFO mapreduce.Job: map 100% reduce 100%

18/01/27 16:08:02 INFO mapreduce.Job: Job job\_local923819859\_0001 completed successfully

18/01/27 16:08:03 INFO mapreduce.Job: Counters: 30

File System Counters

FILE: Number of bytes read=1658866

FILE: Number of bytes written=2540602

FILE: Number of read operations=0

FILE: Number of large read operations=0

FILE: Number of write operations=0

Map-Reduce Framework

Map input records=2030

Map output records=14232

Map output bytes=155593

Map output materialized bytes=42594

Input split bytes=313

Combine input records=14232

Combine output records=2651

Reduce input groups=2400

Reduce shuffle bytes=42594

Reduce input records=2651

Reduce output records=2400

Spilled Records=5302

Shuffled Maps =3

Failed Shuffles=0

Merged Map outputs=3

GC time elapsed (ms)=145

Total committed heap usage (bytes)=808124416

Shuffle Errors

BAD\_ID=0

CONNECTION=0

IO\_ERROR=0

WRONG\_LENGTH=0

WRONG\_MAP=0

WRONG\_REDUCE=0

File Input Format Counters

Bytes Read=101198

File Output Format Counters

Bytes Written=30296

#注意，分析结果输出路径由hadoop程序创建，不能手动创建，否则报错

[root@test01 hadoop]# ls output/

part-r-00000 \_SUCCESS

[root@test01 hadoop]# tail -5 output/part-r-00000

“Source 1

“Your”) 1

“You” 2

“commercial 3

“control” 1

#检查输出，\_SUCCESS表示执行成功，part-r-000000是分析结果

[root@test01 hadoop]# ./bin/hadoop jar share/hadoop/mapreduce/hadoop-mapreduce-examples-2.7.3.jar grep input output1 'the'

18/01/27 16:54:03 INFO Configuration.deprecation: session.id is deprecated. Instead, use dfs.metrics.session-id

18/01/27 16:54:03 INFO jvm.JvmMetrics: Initializing JVM Metrics with processName=JobTracker, sessionId=

18/01/27 16:54:03 INFO input.FileInputFormat: Total input paths to process : 3

18/01/27 16:54:03 INFO mapreduce.JobSubmitter: number of splits:3

18/01/27 16:54:03 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_local909865296\_0001

18/01/27 16:54:03 INFO mapreduce.Job: The url to track the job: http://localhost:8080/

18/01/27 16:54:03 INFO mapreduce.Job: Running job: job\_local909865296\_0001

18/01/27 16:54:03 INFO mapred.LocalJobRunner: OutputCommitter set in config null

18/01/27 16:54:03 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:03 INFO mapred.LocalJobRunner: OutputCommitter is org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Waiting for map tasks

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Starting task: attempt\_local909865296\_0001\_m\_000000\_0

18/01/27 16:54:04 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:04 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:04 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/LICENSE.txt:0+84854

18/01/27 16:54:04 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:54:04 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:54:04 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:54:04 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:54:04 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:54:04 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:54:04 INFO mapred.LocalJobRunner:

18/01/27 16:54:04 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:54:04 INFO mapred.MapTask: Spilling map output

18/01/27 16:54:04 INFO mapred.MapTask: bufstart = 0; bufend = 9864; bufvoid = 104857600

18/01/27 16:54:04 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26211112(104844448); length = 3285/6553600

18/01/27 16:54:04 INFO mapred.MapTask: Finished spill 0

18/01/27 16:54:04 INFO mapred.Task: Task:attempt\_local909865296\_0001\_m\_000000\_0 is done. And is in the process of committing

18/01/27 16:54:04 INFO mapred.LocalJobRunner: map

18/01/27 16:54:04 INFO mapred.Task: Task 'attempt\_local909865296\_0001\_m\_000000\_0' done.

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Finishing task: attempt\_local909865296\_0001\_m\_000000\_0

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Starting task: attempt\_local909865296\_0001\_m\_000001\_0

18/01/27 16:54:04 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:04 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:04 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/NOTICE.txt:0+14978

18/01/27 16:54:04 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:54:04 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:54:04 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:54:04 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:54:04 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:54:04 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:54:04 INFO mapred.LocalJobRunner:

18/01/27 16:54:04 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:54:04 INFO mapred.MapTask: Spilling map output

18/01/27 16:54:04 INFO mapred.MapTask: bufstart = 0; bufend = 612; bufvoid = 104857600

18/01/27 16:54:04 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26214196(104856784); length = 201/6553600

18/01/27 16:54:04 INFO mapred.MapTask: Finished spill 0

18/01/27 16:54:04 INFO mapred.Task: Task:attempt\_local909865296\_0001\_m\_000001\_0 is done. And is in the process of committing

18/01/27 16:54:04 INFO mapred.LocalJobRunner: map

18/01/27 16:54:04 INFO mapred.Task: Task 'attempt\_local909865296\_0001\_m\_000001\_0' done.

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Finishing task: attempt\_local909865296\_0001\_m\_000001\_0

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Starting task: attempt\_local909865296\_0001\_m\_000002\_0

18/01/27 16:54:04 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:04 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:04 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/README.txt:0+1366

18/01/27 16:54:04 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:54:04 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:54:04 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:54:04 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:54:04 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:54:04 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:54:04 INFO mapred.LocalJobRunner:

18/01/27 16:54:04 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:54:04 INFO mapred.MapTask: Spilling map output

18/01/27 16:54:04 INFO mapred.MapTask: bufstart = 0; bufend = 108; bufvoid = 104857600

18/01/27 16:54:04 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26214364(104857456); length = 33/6553600

18/01/27 16:54:04 INFO mapred.MapTask: Finished spill 0

18/01/27 16:54:04 INFO mapred.Task: Task:attempt\_local909865296\_0001\_m\_000002\_0 is done. And is in the process of committing

18/01/27 16:54:04 INFO mapred.LocalJobRunner: map

18/01/27 16:54:04 INFO mapred.Task: Task 'attempt\_local909865296\_0001\_m\_000002\_0' done.

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Finishing task: attempt\_local909865296\_0001\_m\_000002\_0

18/01/27 16:54:04 INFO mapred.LocalJobRunner: map task executor complete.

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Waiting for reduce tasks

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Starting task: attempt\_local909865296\_0001\_r\_000000\_0

18/01/27 16:54:04 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:04 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:04 INFO mapred.ReduceTask: Using ShuffleConsumerPlugin: org.apache.hadoop.mapreduce.task.reduce.Shuffle@54f49f77

18/01/27 16:54:04 INFO reduce.MergeManagerImpl: MergerManager: memoryLimit=363285696, maxSingleShuffleLimit=90821424, mergeThreshold=239768576, ioSortFactor=10, memToMemMergeOutputsThreshold=10

18/01/27 16:54:04 INFO reduce.EventFetcher: attempt\_local909865296\_0001\_r\_000000\_0 Thread started: EventFetcher for fetching Map Completion Events

18/01/27 16:54:04 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of map attempt\_local909865296\_0001\_m\_000000\_0 decomp: 16 len: 20 to MEMORY

18/01/27 16:54:04 INFO reduce.InMemoryMapOutput: Read 16 bytes from map-output for attempt\_local909865296\_0001\_m\_000000\_0

18/01/27 16:54:04 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size: 16, inMemoryMapOutputs.size() -> 1, commitMemory -> 0, usedMemory ->16

18/01/27 16:54:04 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of map attempt\_local909865296\_0001\_m\_000001\_0 decomp: 16 len: 20 to MEMORY

18/01/27 16:54:04 WARN io.ReadaheadPool: Failed readahead on ifile

EBADF: Bad file descriptor

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posix\_fadvise(Native Method)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posixFadviseIfPossible(NativeIO.java:267)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX$CacheManipulator.posixFadviseIfPossible(NativeIO.java:146)

at org.apache.hadoop.io.ReadaheadPool$ReadaheadRequestImpl.run(ReadaheadPool.java:206)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)

at java.lang.Thread.run(Thread.java:745)

18/01/27 16:54:04 INFO reduce.InMemoryMapOutput: Read 16 bytes from map-output for attempt\_local909865296\_0001\_m\_000001\_0

18/01/27 16:54:04 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size: 16, inMemoryMapOutputs.size() -> 2, commitMemory -> 16, usedMemory ->32

18/01/27 16:54:04 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of map attempt\_local909865296\_0001\_m\_000002\_0 decomp: 16 len: 20 to MEMORY

18/01/27 16:54:04 INFO reduce.InMemoryMapOutput: Read 16 bytes from map-output for attempt\_local909865296\_0001\_m\_000002\_0

18/01/27 16:54:04 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size: 16, inMemoryMapOutputs.size() -> 3, commitMemory -> 32, usedMemory ->48

18/01/27 16:54:04 INFO reduce.EventFetcher: EventFetcher is interrupted.. Returning

18/01/27 16:54:04 INFO mapred.LocalJobRunner: 3 / 3 copied.

18/01/27 16:54:04 INFO reduce.MergeManagerImpl: finalMerge called with 3 in-memory map-outputs and 0 on-disk map-outputs

18/01/27 16:54:04 INFO mapred.Merger: Merging 3 sorted segments

18/01/27 16:54:04 INFO mapred.Merger: Down to the last merge-pass, with 3 segments left of total size: 30 bytes

18/01/27 16:54:04 INFO reduce.MergeManagerImpl: Merged 3 segments, 48 bytes to disk to satisfy reduce memory limit

18/01/27 16:54:04 INFO reduce.MergeManagerImpl: Merging 1 files, 48 bytes from disk

18/01/27 16:54:04 INFO reduce.MergeManagerImpl: Merging 0 segments, 0 bytes from memory into reduce

18/01/27 16:54:04 INFO mapred.Merger: Merging 1 sorted segments

18/01/27 16:54:04 WARN io.ReadaheadPool: Failed readahead on ifile

EBADF: Bad file descriptor

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posix\_fadvise(Native Method)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posixFadviseIfPossible(NativeIO.java:267)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX$CacheManipulator.posixFadviseIfPossible(NativeIO.java:146)

at org.apache.hadoop.io.ReadaheadPool$ReadaheadRequestImpl.run(ReadaheadPool.java:206)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)

at java.lang.Thread.run(Thread.java:745)

18/01/27 16:54:04 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of total size: 38 bytes

18/01/27 16:54:04 INFO mapred.LocalJobRunner: 3 / 3 copied.

18/01/27 16:54:04 INFO Configuration.deprecation: mapred.skip.on is deprecated. Instead, use mapreduce.job.skiprecords

18/01/27 16:54:04 INFO mapred.Task: Task:attempt\_local909865296\_0001\_r\_000000\_0 is done. And is in the process of committing

18/01/27 16:54:04 INFO mapred.LocalJobRunner: 3 / 3 copied.

18/01/27 16:54:04 INFO mapred.Task: Task attempt\_local909865296\_0001\_r\_000000\_0 is allowed to commit now

18/01/27 16:54:04 INFO output.FileOutputCommitter: Saved output of task 'attempt\_local909865296\_0001\_r\_000000\_0' to file:/usr/local/hadoop/grep-temp-613883852/\_temporary/0/task\_local909865296\_0001\_r\_000000

18/01/27 16:54:04 INFO mapred.LocalJobRunner: reduce > reduce

18/01/27 16:54:04 INFO mapred.Task: Task 'attempt\_local909865296\_0001\_r\_000000\_0' done.

18/01/27 16:54:04 INFO mapred.LocalJobRunner: Finishing task: attempt\_local909865296\_0001\_r\_000000\_0

18/01/27 16:54:04 INFO mapred.LocalJobRunner: reduce task executor complete.

18/01/27 16:54:04 INFO mapreduce.Job: Job job\_local909865296\_0001 running in uber mode : false

18/01/27 16:54:04 INFO mapreduce.Job: map 100% reduce 100%

18/01/27 16:54:04 INFO mapreduce.Job: Job job\_local909865296\_0001 completed successfully

18/01/27 16:54:04 INFO mapreduce.Job: Counters: 30

File System Counters

FILE: Number of bytes read=1573798

FILE: Number of bytes written=2316054

FILE: Number of read operations=0

FILE: Number of large read operations=0

FILE: Number of write operations=0

Map-Reduce Framework

Map input records=2030

Map output records=882

Map output bytes=10584

Map output materialized bytes=60

Input split bytes=313

Combine input records=882

Combine output records=3

Reduce input groups=1

Reduce shuffle bytes=60

Reduce input records=3

Reduce output records=1

Spilled Records=6

Shuffled Maps =3

Failed Shuffles=0

Merged Map outputs=3

GC time elapsed (ms)=56

Total committed heap usage (bytes)=808140800

Shuffle Errors

BAD\_ID=0

CONNECTION=0

IO\_ERROR=0

WRONG\_LENGTH=0

WRONG\_MAP=0

WRONG\_REDUCE=0

File Input Format Counters

Bytes Read=101198

File Output Format Counters

Bytes Written=118

18/01/27 16:54:05 INFO jvm.JvmMetrics: Cannot initialize JVM Metrics with processName=JobTracker, sessionId= - already initialized

18/01/27 16:54:05 INFO input.FileInputFormat: Total input paths to process : 1

18/01/27 16:54:05 INFO mapreduce.JobSubmitter: number of splits:1

18/01/27 16:54:05 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_local1441824748\_0002

18/01/27 16:54:05 INFO mapreduce.Job: The url to track the job: http://localhost:8080/

18/01/27 16:54:05 INFO mapreduce.Job: Running job: job\_local1441824748\_0002

18/01/27 16:54:05 INFO mapred.LocalJobRunner: OutputCommitter set in config null

18/01/27 16:54:05 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:05 INFO mapred.LocalJobRunner: OutputCommitter is org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter

18/01/27 16:54:05 INFO mapred.LocalJobRunner: Waiting for map tasks

18/01/27 16:54:05 INFO mapred.LocalJobRunner: Starting task: attempt\_local1441824748\_0002\_m\_000000\_0

18/01/27 16:54:05 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:05 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:05 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/grep-temp-613883852/part-r-00000:0+106

18/01/27 16:54:05 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:54:05 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:54:05 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:54:05 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:54:05 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:54:05 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:54:05 INFO mapred.LocalJobRunner:

18/01/27 16:54:05 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:54:05 INFO mapred.MapTask: Spilling map output

18/01/27 16:54:05 INFO mapred.MapTask: bufstart = 0; bufend = 12; bufvoid = 104857600

18/01/27 16:54:05 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26214396(104857584); length = 1/6553600

18/01/27 16:54:05 INFO mapred.MapTask: Finished spill 0

18/01/27 16:54:05 INFO mapred.Task: Task:attempt\_local1441824748\_0002\_m\_000000\_0 is done. And is in the process of committing

18/01/27 16:54:05 INFO mapred.LocalJobRunner: map

18/01/27 16:54:05 INFO mapred.Task: Task 'attempt\_local1441824748\_0002\_m\_000000\_0' done.

18/01/27 16:54:05 INFO mapred.LocalJobRunner: Finishing task: attempt\_local1441824748\_0002\_m\_000000\_0

18/01/27 16:54:05 INFO mapred.LocalJobRunner: map task executor complete.

18/01/27 16:54:05 INFO mapred.LocalJobRunner: Waiting for reduce tasks

18/01/27 16:54:05 INFO mapred.LocalJobRunner: Starting task: attempt\_local1441824748\_0002\_r\_000000\_0

18/01/27 16:54:05 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:05 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:05 INFO mapred.ReduceTask: Using ShuffleConsumerPlugin: org.apache.hadoop.mapreduce.task.reduce.Shuffle@3860ae01

18/01/27 16:54:05 INFO reduce.MergeManagerImpl: MergerManager: memoryLimit=363285696, maxSingleShuffleLimit=90821424, mergeThreshold=239768576, ioSortFactor=10, memToMemMergeOutputsThreshold=10

18/01/27 16:54:05 INFO reduce.EventFetcher: attempt\_local1441824748\_0002\_r\_000000\_0 Thread started: EventFetcher for fetching Map Completion Events

18/01/27 16:54:05 INFO reduce.LocalFetcher: localfetcher#2 about to shuffle output of map attempt\_local1441824748\_0002\_m\_000000\_0 decomp: 16 len: 20 to MEMORY

18/01/27 16:54:05 INFO reduce.InMemoryMapOutput: Read 16 bytes from map-output for attempt\_local1441824748\_0002\_m\_000000\_0

18/01/27 16:54:05 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size: 16, inMemoryMapOutputs.size() -> 1, commitMemory -> 0, usedMemory ->16

18/01/27 16:54:05 WARN io.ReadaheadPool: Failed readahead on ifile

EBADF: Bad file descriptor

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posix\_fadvise(Native Method)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX.posixFadviseIfPossible(NativeIO.java:267)

at org.apache.hadoop.io.nativeio.NativeIO$POSIX$CacheManipulator.posixFadviseIfPossible(NativeIO.java:146)

at org.apache.hadoop.io.ReadaheadPool$ReadaheadRequestImpl.run(ReadaheadPool.java:206)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)

at java.lang.Thread.run(Thread.java:745)

18/01/27 16:54:05 INFO reduce.EventFetcher: EventFetcher is interrupted.. Returning

18/01/27 16:54:05 INFO mapred.LocalJobRunner: 1 / 1 copied.

18/01/27 16:54:05 INFO reduce.MergeManagerImpl: finalMerge called with 1 in-memory map-outputs and 0 on-disk map-outputs

18/01/27 16:54:05 INFO mapred.Merger: Merging 1 sorted segments

18/01/27 16:54:05 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of total size: 6 bytes

18/01/27 16:54:05 INFO reduce.MergeManagerImpl: Merged 1 segments, 16 bytes to disk to satisfy reduce memory limit

18/01/27 16:54:05 INFO reduce.MergeManagerImpl: Merging 1 files, 20 bytes from disk

18/01/27 16:54:05 INFO reduce.MergeManagerImpl: Merging 0 segments, 0 bytes from memory into reduce

18/01/27 16:54:05 INFO mapred.Merger: Merging 1 sorted segments

18/01/27 16:54:05 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of total size: 6 bytes

18/01/27 16:54:05 INFO mapred.LocalJobRunner: 1 / 1 copied.

18/01/27 16:54:05 INFO mapred.Task: Task:attempt\_local1441824748\_0002\_r\_000000\_0 is done. And is in the process of committing

18/01/27 16:54:05 INFO mapred.LocalJobRunner: 1 / 1 copied.

18/01/27 16:54:05 INFO mapred.Task: Task attempt\_local1441824748\_0002\_r\_000000\_0 is allowed to commit now

18/01/27 16:54:05 INFO output.FileOutputCommitter: Saved output of task 'attempt\_local1441824748\_0002\_r\_000000\_0' to file:/usr/local/hadoop/output1/\_temporary/0/task\_local1441824748\_0002\_r\_000000

18/01/27 16:54:05 INFO mapred.LocalJobRunner: reduce > reduce

18/01/27 16:54:05 INFO mapred.Task: Task 'attempt\_local1441824748\_0002\_r\_000000\_0' done.

18/01/27 16:54:05 INFO mapred.LocalJobRunner: Finishing task: attempt\_local1441824748\_0002\_r\_000000\_0

18/01/27 16:54:05 INFO mapred.LocalJobRunner: reduce task executor complete.

18/01/27 16:54:06 INFO mapreduce.Job: Job job\_local1441824748\_0002 running in uber mode : false

18/01/27 16:54:06 INFO mapreduce.Job: map 100% reduce 100%

18/01/27 16:54:06 INFO mapreduce.Job: Job job\_local1441824748\_0002 completed successfully

18/01/27 16:54:06 INFO mapreduce.Job: Counters: 30

File System Counters

FILE: Number of bytes read=1388838

FILE: Number of bytes written=2316402

FILE: Number of read operations=0

FILE: Number of large read operations=0

FILE: Number of write operations=0

Map-Reduce Framework

Map input records=1

Map output records=1

Map output bytes=12

Map output materialized bytes=20

Input split bytes=120

Combine input records=0

Combine output records=0

Reduce input groups=1

Reduce shuffle bytes=20

Reduce input records=1

Reduce output records=1

Spilled Records=2

Shuffled Maps =1

Failed Shuffles=0

Merged Map outputs=1

GC time elapsed (ms)=22

Total committed heap usage (bytes)=387235840

Shuffle Errors

BAD\_ID=0

CONNECTION=0

IO\_ERROR=0

WRONG\_LENGTH=0

WRONG\_MAP=0

WRONG\_REDUCE=0

File Input Format Counters

Bytes Read=118

File Output Format Counters

Bytes Written=20

[root@test01 hadoop]# ./bin/hadoop jar share/hadoop/mapreduce/hadoop-mapreduce-examples-2.7.3.jar grep input output2 '[a-Z]{3}'

18/01/27 16:54:21 INFO Configuration.deprecation: session.id is deprecated. Instead, use dfs.metrics.session-id

18/01/27 16:54:21 INFO jvm.JvmMetrics: Initializing JVM Metrics with processName=JobTracker, sessionId=

18/01/27 16:54:21 INFO input.FileInputFormat: Total input paths to process : 3

18/01/27 16:54:21 INFO mapreduce.JobSubmitter: number of splits:3

18/01/27 16:54:22 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_local1343100248\_0001

18/01/27 16:54:22 INFO mapreduce.Job: The url to track the job: http://localhost:8080/

18/01/27 16:54:22 INFO mapreduce.Job: Running job: job\_local1343100248\_0001

18/01/27 16:54:22 INFO mapred.LocalJobRunner: OutputCommitter set in config null

18/01/27 16:54:22 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:22 INFO mapred.LocalJobRunner: OutputCommitter is org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter

18/01/27 16:54:22 INFO mapred.LocalJobRunner: Waiting for map tasks

18/01/27 16:54:22 INFO mapred.LocalJobRunner: Starting task: attempt\_local1343100248\_0001\_m\_000000\_0

18/01/27 16:54:22 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:22 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:22 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/LICENSE.txt:0+84854

18/01/27 16:54:23 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:54:23 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:54:23 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:54:23 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:54:23 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:54:23 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:54:23 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:54:23 INFO mapred.LocalJobRunner: Starting task: attempt\_local1343100248\_0001\_m\_000001\_0

18/01/27 16:54:23 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:23 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:23 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/NOTICE.txt:0+14978

18/01/27 16:54:23 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:54:23 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:54:23 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:54:23 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:54:23 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:54:23 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:54:23 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:54:23 INFO mapred.LocalJobRunner: Starting task: attempt\_local1343100248\_0001\_m\_000002\_0

18/01/27 16:54:23 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:23 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:23 INFO mapred.MapTask: Processing split: file:/usr/local/hadoop/input/README.txt:0+1366

18/01/27 16:54:23 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)

18/01/27 16:54:23 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

18/01/27 16:54:23 INFO mapred.MapTask: soft limit at 83886080

18/01/27 16:54:23 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600

18/01/27 16:54:23 INFO mapred.MapTask: kvstart = 26214396; length = 6553600

18/01/27 16:54:23 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer

18/01/27 16:54:23 INFO mapred.MapTask: Starting flush of map output

18/01/27 16:54:23 INFO mapred.LocalJobRunner: map task executor complete.

18/01/27 16:54:23 WARN mapred.LocalJobRunner: job\_local1343100248\_0001

java.lang.Exception: java.util.regex.PatternSyntaxException: Illegal character range near index 3

[a-Z]{3}

^

at org.apache.hadoop.mapred.LocalJobRunner$Job.runTasks(LocalJobRunner.java:462)

at org.apache.hadoop.mapred.LocalJobRunner$Job.run(LocalJobRunner.java:522)

Caused by: java.util.regex.PatternSyntaxException: Illegal character range near index 3

[a-Z]{3}

^

at java.util.regex.Pattern.error(Pattern.java:1955)

at java.util.regex.Pattern.range(Pattern.java:2655)

at java.util.regex.Pattern.clazz(Pattern.java:2562)

at java.util.regex.Pattern.sequence(Pattern.java:2063)

at java.util.regex.Pattern.expr(Pattern.java:1996)

at java.util.regex.Pattern.compile(Pattern.java:1696)

at java.util.regex.Pattern.<init>(Pattern.java:1351)

at java.util.regex.Pattern.compile(Pattern.java:1028)

at org.apache.hadoop.mapreduce.lib.map.RegexMapper.setup(RegexMapper.java:45)

at org.apache.hadoop.mapreduce.Mapper.run(Mapper.java:143)

at org.apache.hadoop.mapred.MapTask.runNewMapper(MapTask.java:787)

at org.apache.hadoop.mapred.MapTask.run(MapTask.java:341)

at org.apache.hadoop.mapred.LocalJobRunner$Job$MapTaskRunnable.run(LocalJobRunner.java:243)

at java.util.concurrent.Executors$RunnableAdapter.call(Executors.java:511)

at java.util.concurrent.FutureTask.run(FutureTask.java:266)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)

at java.lang.Thread.run(Thread.java:745)

18/01/27 16:54:23 INFO mapreduce.Job: Job job\_local1343100248\_0001 running in uber mode : false

18/01/27 16:54:23 INFO mapreduce.Job: map 0% reduce 0%

18/01/27 16:54:23 INFO mapreduce.Job: Job job\_local1343100248\_0001 failed with state FAILED due to: NA

18/01/27 16:54:23 INFO mapreduce.Job: Counters: 0

18/01/27 16:54:23 INFO jvm.JvmMetrics: Cannot initialize JVM Metrics with processName=JobTracker, sessionId= - already initialized

18/01/27 16:54:23 INFO input.FileInputFormat: Total input paths to process : 0

18/01/27 16:54:23 INFO mapreduce.JobSubmitter: number of splits:0

18/01/27 16:54:23 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_local111589785\_0002

18/01/27 16:54:23 INFO mapreduce.Job: The url to track the job: http://localhost:8080/

18/01/27 16:54:23 INFO mapreduce.Job: Running job: job\_local111589785\_0002

18/01/27 16:54:23 INFO mapred.LocalJobRunner: OutputCommitter set in config null

18/01/27 16:54:23 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:23 INFO mapred.LocalJobRunner: OutputCommitter is org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter

18/01/27 16:54:23 INFO mapred.LocalJobRunner: Waiting for map tasks

18/01/27 16:54:23 INFO mapred.LocalJobRunner: map task executor complete.

18/01/27 16:54:23 INFO mapred.LocalJobRunner: Waiting for reduce tasks

18/01/27 16:54:23 INFO mapred.LocalJobRunner: Starting task: attempt\_local111589785\_0002\_r\_000000\_0

18/01/27 16:54:23 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 1

18/01/27 16:54:23 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]

18/01/27 16:54:23 INFO mapred.ReduceTask: Using ShuffleConsumerPlugin: org.apache.hadoop.mapreduce.task.reduce.Shuffle@6a540539

18/01/27 16:54:23 INFO reduce.MergeManagerImpl: MergerManager: memoryLimit=363285696, maxSingleShuffleLimit=90821424, mergeThreshold=239768576, ioSortFactor=10, memToMemMergeOutputsThreshold=10

18/01/27 16:54:23 INFO reduce.EventFetcher: attempt\_local111589785\_0002\_r\_000000\_0 Thread started: EventFetcher for fetching Map Completion Events

18/01/27 16:54:23 INFO mapred.LocalJobRunner:

18/01/27 16:54:23 INFO reduce.MergeManagerImpl: finalMerge called with 0 in-memory map-outputs and 0 on-disk map-outputs

18/01/27 16:54:23 INFO reduce.MergeManagerImpl: Merging 0 files, 0 bytes from disk

18/01/27 16:54:23 INFO reduce.MergeManagerImpl: Merging 0 segments, 0 bytes from memory into reduce

18/01/27 16:54:23 INFO mapred.Merger: Merging 0 sorted segments

18/01/27 16:54:23 INFO mapred.Merger: Down to the last merge-pass, with 0 segments left of total size: 0 bytes

18/01/27 16:54:23 INFO mapred.LocalJobRunner:

18/01/27 16:54:23 INFO Configuration.deprecation: mapred.skip.on is deprecated. Instead, use mapreduce.job.skiprecords

18/01/27 16:54:23 INFO mapred.Task: Task:attempt\_local111589785\_0002\_r\_000000\_0 is done. And is in the process of committing

18/01/27 16:54:23 INFO mapred.LocalJobRunner:

18/01/27 16:54:23 INFO mapred.Task: Task attempt\_local111589785\_0002\_r\_000000\_0 is allowed to commit now

18/01/27 16:54:23 INFO output.FileOutputCommitter: Saved output of task 'attempt\_local111589785\_0002\_r\_000000\_0' to file:/usr/local/hadoop/output2/\_temporary/0/task\_local111589785\_0002\_r\_000000

18/01/27 16:54:23 INFO mapred.LocalJobRunner: reduce > reduce

18/01/27 16:54:23 INFO mapred.Task: Task 'attempt\_local111589785\_0002\_r\_000000\_0' done.

18/01/27 16:54:23 INFO mapred.LocalJobRunner: Finishing task: attempt\_local111589785\_0002\_r\_000000\_0

18/01/27 16:54:23 INFO mapred.LocalJobRunner: reduce task executor complete.

18/01/27 16:54:24 INFO mapreduce.Job: Job job\_local111589785\_0002 running in uber mode : false

18/01/27 16:54:24 INFO mapreduce.Job: map 0% reduce 100%

18/01/27 16:54:24 INFO mapreduce.Job: Job job\_local111589785\_0002 completed successfully

18/01/27 16:54:24 INFO mapreduce.Job: Counters: 24

File System Counters

FILE: Number of bytes read=592711

FILE: Number of bytes written=1157814

FILE: Number of read operations=0

FILE: Number of large read operations=0

FILE: Number of write operations=0

Map-Reduce Framework

Combine input records=0

Combine output records=0

Reduce input groups=0

Reduce shuffle bytes=0

Reduce input records=0

Reduce output records=0

Spilled Records=0

Shuffled Maps =0

Failed Shuffles=0

Merged Map outputs=0

GC time elapsed (ms)=0

Total committed heap usage (bytes)=259280896

Shuffle Errors

BAD\_ID=0

CONNECTION=0

IO\_ERROR=0

WRONG\_LENGTH=0

WRONG\_MAP=0

WRONG\_REDUCE=0

File Output Format Counters

Bytes Written=8

[root@test01 hadoop]# ls output\*

output:

part-r-00000 \_SUCCESS

output1:

part-r-00000 \_SUCCESS

output2:

part-r-00000 \_SUCCESS

##部署完全分布式

#基础环境配置

#安装jdk（四台同步）

[root@master ~]# yum -y install java-1.8.0-openjdk-devel

[root@master ~]# jps

3271 Jps

[root@master ~]# java -version

openjdk version "1.8.0\_102"

OpenJDK Runtime Environment (build 1.8.0\_102-b14)

OpenJDK 64-Bit Server VM (build 25.102-b14, mixed mode)

#测试ping结果

[root@master ~]# ping -c 2 node01

PING node01 (192.168.4.1) 56(84) bytes of data.

64 bytes from node01 (192.168.4.1): icmp\_seq=1 ttl=64 time=1.57 ms

64 bytes from node01 (192.168.4.1): icmp\_seq=2 ttl=64 time=0.966 ms

--- node01 ping statistics ---

2 packets transmitted, 2 received, 0% packet loss, time 1002ms

rtt min/avg/max/mdev = 0.966/1.269/1.573/0.305 ms

[root@master ~]# ping -c 2 node02

PING node02 (192.168.4.2) 56(84) bytes of data.

64 bytes from node02 (192.168.4.2): icmp\_seq=1 ttl=64 time=5.22 ms

64 bytes from node02 (192.168.4.2): icmp\_seq=2 ttl=64 time=1.75 ms

--- node02 ping statistics ---

2 packets transmitted, 2 received, 0% packet loss, time 1002ms

rtt min/avg/max/mdev = 1.753/3.490/5.227/1.737 ms

[root@master ~]# ping -c 2 node03

PING node03 (192.168.4.3) 56(84) bytes of data.

64 bytes from node03 (192.168.4.3): icmp\_seq=1 ttl=64 time=4.07 ms

64 bytes from node03 (192.168.4.3): icmp\_seq=2 ttl=64 time=1.25 ms

--- node03 ping statistics ---

2 packets transmitted, 2 received, 0% packet loss, time 1002ms

rtt min/avg/max/mdev = 1.250/2.664/4.078/1.414 ms

#配置互信

[root@master ~]# ssh-keygen

[root@master ~]# ssh-copy-id [root@192.168.4.1](mailto:root@192.168.4.1)

[root@master ~]# ssh 192.168.4.1

[root@master ~]# ssh node01

#建立互信，测试连接，ssh远程登录时不能出现yes，三台同步

##小技巧

[root@master ~]# sed -n '56,58p' /etc/ssh/ssh\_config

Host \*

GSSAPIAuthentication no

StrictHostKeyChecking no

重启sshd服务，远程登录其他虚拟机时关闭yes

#master部署hadoop

[root@master ~]# tar -xf hadoop.tar

[root@master ~]# tar -xf hadoop-2.7.3.tar.gz

[root@master ~]# mv hadoop-2.7.3 /usr/local/hadoop/

[root@master ~]# cd /usr/local/hadoop/etc/hadoop/

[root@master hadoop]# sed -n "25p;33p" hadoop-env.sh

export JAVA\_HOME="/usr/lib/jvm/java-1.8.0-openjdk/jre/"

export HADOOP\_CONF\_DIRi="/usr/local/hadoop/etc/hadoop/"

[root@master hadoop]# cd /usr/local/hadoop/

[root@master hadoop]# ./bin/hadoop version

Hadoop 2.7.3

Subversion https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff

Compiled by root on 2016-08-18T01:41Z

Compiled with protoc 2.5.0

From source with checksum 2e4ce5f957ea4db193bce3734ff29ff4

This command was run using /usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar

[root@master hadoop]# cd etc/hadoop/

[root@master hadoop]# sed -n "1,2p;19,28p" core-site.xml

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>

<configuration>

<!--文件系统类型-->

<property>

<name>fs.defaultFS</name>

<value>hdfs://master:9000</value>

</property>

<!--数据存放路径-->

<property>

<name>hadoop.tmp.dir</name>

<value>/var/hadoop</value>

</property>

</configuration>

[root@master hadoop]# mkdir /var/hadoop

[root@node01 ~]# mkdir /var/hadoop

[root@node02 ~]# mkdir /var/hadoop

[root@node03 ~]# mkdir /var/hadoop

[root@master hadoop]# sed -n "1,2p;19,35p" hdfs-site.xml

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>

<configuration>

<!--管理节点-->

<property>

<name>dfs.namenode.http-address</name>

<value>master:50070</value>

</property>

<!--备份管理节点-->

<property>

<name>fds.namenode.secondary.http-address</name>

<value>master:50090</value>

</property>

<!--数据备份数量-->

<property>

<name>dfs.replication</name>

<value>2</value>

</property>

</configuration>

[root@master hadoop]# cat slaves

node01

node02

node03

##注意，在此填写DataNode主机名，master可以直接ssh，不能输入yes

[root@master hadoop]# cd ..

[root@master ~]# for i in node0{1..3}; do rsync -aSH --delete /usr/local/hadoop $i:/usr/local/ -e 'ssh' & done

[1] 6549

[2] 6550

[3] 6551

[root@master ~]# wait

[1] 完成 rsync -aSH --delete /usr/local/hadoop $i:/usr/local/ -e 'ssh'

[2]- 完成 rsync -aSH --delete /usr/local/hadoop $i:/usr/local/ -e 'ssh'

[3]+ 完成 rsync -aSH --delete /usr/local/hadoop $i:/usr/local/ -e 'ssh'

[root@node01 ~]# /usr/local/hadoop/bin/hadoop versionHadoop 2.7.3

Subversion https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff

Compiled by root on 2016-08-18T01:41Z

Compiled with protoc 2.5.0

From source with checksum 2e4ce5f957ea4db193bce3734ff29ff4

This command was run using /usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar

[root@node02 ~]# /usr/local/hadoop/bin/hadoop versionHadoop 2.7.3

Subversion https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff

Compiled by root on 2016-08-18T01:41Z

Compiled with protoc 2.5.0

From source with checksum 2e4ce5f957ea4db193bce3734ff29ff4

This command was run using /usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar

[root@node03 ~]# /usr/local/hadoop/bin/hadoop versionHadoop 2.7.3

Subversion https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff

Compiled by root on 2016-08-18T01:41Z

Compiled with protoc 2.5.0

From source with checksum 2e4ce5f957ea4db193bce3734ff29ff4

This command was run using /usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar

#测试分发结果

[root@master ~]# cd /usr/local/hadoop/bin/

[root@master bin]# ls

container-executor mapred.cmd

hadoop rcc

hadoop.cmd test-container-executor

hdfs yarn

hdfs.cmd yarn.cmd

mapred

[root@master bin]# ./hadoop namenode -format

DEPRECATED: Use of this script to execute hdfs command is deprecated.

Instead use the hdfs command for it.

18/01/30 13:53:05 INFO namenode.NameNode: STARTUP\_MSG:

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

STARTUP\_MSG: Starting NameNode

STARTUP\_MSG: host = master/192.168.4.4

STARTUP\_MSG: args = [-format]

STARTUP\_MSG: version = 2.7.3

STARTUP\_MSG: classpath = /usr/local/hadoop/etc/hadoop:/usr/local/hadoop/share/hadoop/common/lib/jaxb-impl-2.2.3-1.jar:/usr/local/hadoop/share/hadoop/common/lib/jaxb-api-2.2.2.jar:/usr/local/hadoop/share/hadoop/common/lib/stax-api-1.0-2.jar:/usr/local/hadoop/share/hadoop/common/lib/activation-1.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-jaxrs-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-xc-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/common/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/common/lib/jets3t-0.9.0.jar:/usr/local/hadoop/share/hadoop/common/lib/httpclient-4.2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/httpcore-4.2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/java-xmlbuilder-0.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-configuration-1.6.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-digester-1.8.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-beanutils-1.7.0.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-beanutils-core-1.8.0.jar:/usr/local/hadoop/share/hadoop/common/lib/slf4j-api-1.7.10.jar:/usr/local/hadoop/share/hadoop/common/lib/slf4j-log4j12-1.7.10.jar:/usr/local/hadoop/share/hadoop/common/lib/avro-1.7.4.jar:/usr/local/hadoop/share/hadoop/common/lib/paranamer-2.3.jar:/usr/local/hadoop/share/hadoop/common/lib/snappy-java-1.0.4.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/common/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/common/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/common/lib/gson-2.2.4.jar:/usr/local/hadoop/share/hadoop/common/lib/hadoop-auth-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/lib/apacheds-kerberos-codec-2.0.0-M15.jar:/usr/local/hadoop/share/hadoop/common/lib/apacheds-i18n-2.0.0-M15.jar:/usr/local/hadoop/share/hadoop/common/lib/api-asn1-api-1.0.0-M20.jar:/usr/local/hadoop/share/hadoop/common/lib/api-util-1.0.0-M20.jar:/usr/local/hadoop/share/hadoop/common/lib/zookeeper-3.4.6.jar:/usr/local/hadoop/share/hadoop/common/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-framework-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-client-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jsch-0.1.42.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-recipes-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/htrace-core-3.1.0-incubating.jar:/usr/local/hadoop/share/hadoop/common/lib/junit-4.11.jar:/usr/local/hadoop/share/hadoop/common/lib/hamcrest-core-1.3.jar:/usr/local/hadoop/share/hadoop/common/lib/mockito-all-1.8.5.jar:/usr/local/hadoop/share/hadoop/common/lib/hadoop-annotations-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/common/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-math3-3.1.1.jar:/usr/local/hadoop/share/hadoop/common/lib/xmlenc-0.52.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-httpclient-3.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-net-3.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-collections-3.2.2.jar:/usr/local/hadoop/share/hadoop/common/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/common/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/common/lib/jsp-api-2.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-json-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/jettison-1.1.jar:/usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3-tests.jar:/usr/local/hadoop/share/hadoop/common/hadoop-nfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/hdfs:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xmlenc-0.52.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/htrace-core-3.1.0-incubating.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-daemon-1.0.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/netty-all-4.0.23.Final.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xercesImpl-2.9.1.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xml-apis-1.3.04.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-2.7.3-tests.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-nfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/lib/zookeeper-3.4.6-tests.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/yarn/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jaxb-api-2.2.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/stax-api-1.0-2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/activation-1.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-client-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-jaxrs-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-xc-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guice-servlet-3.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guice-3.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/javax.inject-1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/aopalliance-1.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-json-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jettison-1.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jaxb-impl-2.2.3-1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-guice-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/zookeeper-3.4.6.jar:/usr/local/hadoop/share/hadoop/yarn/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/yarn/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-collections-3.2.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-api-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-nodemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-web-proxy-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-applicationhistoryservice-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-resourcemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-tests-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-client-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-sharedcachemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-applications-distributedshell-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-applications-unmanaged-am-launcher-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-registry-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/avro-1.7.4.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/paranamer-2.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/snappy-java-1.0.4.1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/hadoop-annotations-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/guice-3.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/javax.inject-1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/aopalliance-1.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-guice-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/guice-servlet-3.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/junit-4.11.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/hamcrest-core-1.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-core-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-shuffle-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-app-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-hs-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-jobclient-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-hs-plugins-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-jobclient-2.7.3-tests.jar:/contrib/capacity-scheduler/\*.jar:/contrib/capacity-scheduler/\*.jar

STARTUP\_MSG: build = https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff; compiled by 'root' on 2016-08-18T01:41Z

STARTUP\_MSG: java = 1.8.0\_102

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18/01/30 13:53:05 INFO namenode.NameNode: registered UNIX signal handlers for [TERM, HUP, INT]

18/01/30 13:53:05 INFO namenode.NameNode: createNameNode [-format]

Formatting using clusterid: CID-480ca1f9-eb86-45df-ba4e-fe8d58fa7320

18/01/30 13:53:07 INFO namenode.FSNamesystem: No KeyProvider found.

18/01/30 13:53:07 INFO namenode.FSNamesystem: fsLock is fair:true

18/01/30 13:53:07 INFO blockmanagement.DatanodeManager: dfs.block.invalidate.limit=1000

18/01/30 13:53:07 INFO blockmanagement.DatanodeManager: dfs.namenode.datanode.registration.ip-hostname-check=true

18/01/30 13:53:07 INFO blockmanagement.BlockManager: dfs.namenode.startup.delay.block.deletion.sec is set to 000:00:00:00.000

18/01/30 13:53:07 INFO blockmanagement.BlockManager: The block deletion will start around 2018 一月 30 13:53:07

18/01/30 13:53:07 INFO util.GSet: Computing capacity for map BlocksMap

18/01/30 13:53:07 INFO util.GSet: VM type = 64-bit

18/01/30 13:53:07 INFO util.GSet: 2.0% max memory 966.7 MB = 19.3 MB

18/01/30 13:53:07 INFO util.GSet: capacity = 2^21 = 2097152 entries

18/01/30 13:53:07 INFO blockmanagement.BlockManager: dfs.block.access.token.enable=false

18/01/30 13:53:07 INFO blockmanagement.BlockManager: defaultReplication = 2

18/01/30 13:53:07 INFO blockmanagement.BlockManager: maxReplication = 512

18/01/30 13:53:07 INFO blockmanagement.BlockManager: minReplication = 1

18/01/30 13:53:07 INFO blockmanagement.BlockManager: maxReplicationStreams = 2

18/01/30 13:53:07 INFO blockmanagement.BlockManager: replicationRecheckInterval = 3000

18/01/30 13:53:07 INFO blockmanagement.BlockManager: encryptDataTransfer = false

18/01/30 13:53:07 INFO blockmanagement.BlockManager: maxNumBlocksToLog = 1000

18/01/30 13:53:07 INFO namenode.FSNamesystem: fsOwner = root (auth:SIMPLE)

18/01/30 13:53:07 INFO namenode.FSNamesystem: supergroup = supergroup

18/01/30 13:53:07 INFO namenode.FSNamesystem: isPermissionEnabled = true

18/01/30 13:53:07 INFO namenode.FSNamesystem: HA Enabled: false

18/01/30 13:53:07 INFO namenode.FSNamesystem: Append Enabled: true

18/01/30 13:53:07 INFO util.GSet: Computing capacity for map INodeMap

18/01/30 13:53:07 INFO util.GSet: VM type = 64-bit

18/01/30 13:53:07 INFO util.GSet: 1.0% max memory 966.7 MB = 9.7 MB

18/01/30 13:53:07 INFO util.GSet: capacity = 2^20 = 1048576 entries

18/01/30 13:53:07 INFO namenode.FSDirectory: ACLs enabled? false

18/01/30 13:53:07 INFO namenode.FSDirectory: XAttrs enabled? true

18/01/30 13:53:07 INFO namenode.FSDirectory: Maximum size of an xattr: 16384

18/01/30 13:53:07 INFO namenode.NameNode: Caching file names occuring more than 10 times

18/01/30 13:53:07 INFO util.GSet: Computing capacity for map cachedBlocks

18/01/30 13:53:07 INFO util.GSet: VM type = 64-bit

18/01/30 13:53:07 INFO util.GSet: 0.25% max memory 966.7 MB = 2.4 MB

18/01/30 13:53:07 INFO util.GSet: capacity = 2^18 = 262144 entries

18/01/30 13:53:07 INFO namenode.FSNamesystem: dfs.namenode.safemode.threshold-pct = 0.9990000128746033

18/01/30 13:53:07 INFO namenode.FSNamesystem: dfs.namenode.safemode.min.datanodes = 0

18/01/30 13:53:07 INFO namenode.FSNamesystem: dfs.namenode.safemode.extension = 30000

18/01/30 13:53:07 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.window.num.buckets = 10

18/01/30 13:53:07 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.num.users = 10

18/01/30 13:53:07 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.windows.minutes = 1,5,25

18/01/30 13:53:07 INFO namenode.FSNamesystem: Retry cache on namenode is enabled

18/01/30 13:53:07 INFO namenode.FSNamesystem: Retry cache will use 0.03 of total heap and retry cache entry expiry time is 600000 millis

18/01/30 13:53:07 INFO util.GSet: Computing capacity for map NameNodeRetryCache

18/01/30 13:53:07 INFO util.GSet: VM type = 64-bit

18/01/30 13:53:07 INFO util.GSet: 0.029999999329447746% max memory 966.7 MB = 297.0 KB

18/01/30 13:53:07 INFO util.GSet: capacity = 2^15 = 32768 entries

18/01/30 13:53:07 INFO namenode.FSImage: Allocated new BlockPoolId: BP-2140872646-192.168.4.4-1517291587711

18/01/30 13:53:07 INFO common.Storage: Storage directory /var/hadoop/dfs/name has been successfully formatted.

18/01/30 13:53:07 INFO namenode.FSImageFormatProtobuf: Saving image file /var/hadoop/dfs/name/current/fsimage.ckpt\_0000000000000000000 using no compression

18/01/30 13:53:08 INFO namenode.FSImageFormatProtobuf: Image file /var/hadoop/dfs/name/current/fsimage.ckpt\_0000000000000000000 of size 351 bytes saved in 0 seconds.

18/01/30 13:53:08 INFO namenode.NNStorageRetentionManager: Going to retain 1 images with txid >= 0

18/01/30 13:53:08 INFO util.ExitUtil: Exiting with status 0

18/01/30 13:53:08 INFO namenode.NameNode: SHUTDOWN\_MSG:

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SHUTDOWN\_MSG: Shutting down NameNode at master/192.168.4.4

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

#注意，在返回信息中看到手动标绿色的提示则表示执行成功

#测试结果

[root@master bin]# cd ..

[root@master hadoop]# ./sbin/start-dfs.sh

Starting namenodes on [master]

master: starting namenode, logging to /usr/local/hadoop/logs/hadoop-root-namenode-master.tedu.cn.out

node01: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node01.tedu.cn.out

node02: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node02.tedu.cn.out

node03: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node03.tedu.cn.out

Starting secondary namenodes [0.0.0.0]

0.0.0.0: Warning: Permanently added '0.0.0.0' (ECDSA) to the list of known hosts.

0.0.0.0: starting secondarynamenode, logging to /usr/local/hadoop/logs/hadoop-root-secondarynamenode-master.tedu.cn.out

[root@master hadoop]# jps

6824 NameNode

7146 Jps

7007 SecondaryNameNode

[root@node01 ~]# jps

7332 DataNode

7404 Jps

[root@node02 ~]# jps

4916 DataNode

4988 Jps

[root@node03 ~]# jps

7365 DataNode

7501 Jps

#验证结果

[root@master hadoop]# ./bin/hdfs dfsadmin -report

Configured Capacity: 23561502720 (21.94 GB)

Present Capacity: 17612345344 (16.40 GB)

DFS Remaining: 17612333056 (16.40 GB)

DFS Used: 12288 (12 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (3):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 4096 (4 KB)

Non DFS Used: 1791303680 (1.67 GB)

DFS Remaining: 6062526464 (5.65 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.19%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 14:04:24 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 4096 (4 KB)

Non DFS Used: 2366525440 (2.20 GB)

DFS Remaining: 5487304704 (5.11 GB)

DFS Used%: 0.00%

DFS Remaining%: 69.87%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 14:04:26 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 4096 (4 KB)

Non DFS Used: 1791328256 (1.67 GB)

DFS Remaining: 6062501888 (5.65 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.19%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 14:04:25 CST 2018

#hdfs基本使用方法

[root@master hadoop]# ./bin/hadoop fs -ls /

[root@master hadoop]# ./bin/hadoop fs -mkdir /abc

[root@master hadoop]# ./bin/hadoop fs -ls /

Found 1 items

drwxr-xr-x - root supergroup 0 2018-01-30 14:11 /abc

[root@master hadoop]# ./bin/hadoop fs -put \*.txt /abc/

[root@master hadoop]# ./bin/hadoop fs -ls -R /

drwxr-xr-x - root supergroup 0 2018-01-30 14:11 /abc

-rw-r--r-- 2 root supergroup 84854 2018-01-30 14:11 /abc/LICENSE.txt

-rw-r--r-- 2 root supergroup 14978 2018-01-30 14:11 /abc/NOTICE.txt

-rw-r--r-- 2 root supergroup 1366 2018-01-30 14:11 /abc/README.txt

[root@master hadoop]# ./bin/hadoop fs

Usage: hadoop fs [generic options]

[-appendToFile <localsrc> ... <dst>]

[-cat [-ignoreCrc] <src> ...]

[-checksum <src> ...]

[-chgrp [-R] GROUP PATH...]

[-chmod [-R] <MODE[,MODE]... | OCTALMODE> PATH...]

[-chown [-R] [OWNER][:[GROUP]] PATH...]

[-copyFromLocal [-f] [-p] [-l] <localsrc> ... <dst>]

[-copyToLocal [-p] [-ignoreCrc] [-crc] <src> ... <localdst>]

[-count [-q] [-h] <path> ...]

[-cp [-f] [-p | -p[topax]] <src> ... <dst>]

[-createSnapshot <snapshotDir> [<snapshotName>]]

[-deleteSnapshot <snapshotDir> <snapshotName>]

[-df [-h] [<path> ...]]

[-du [-s] [-h] <path> ...]

[-expunge]

[-find <path> ... <expression> ...]

[-get [-p] [-ignoreCrc] [-crc] <src> ... <localdst>]

[-getfacl [-R] <path>]

[-getfattr [-R] {-n name | -d} [-e en] <path>]

[-getmerge [-nl] <src> <localdst>]

[-help [cmd ...]]

[-ls [-d] [-h] [-R] [<path> ...]]

[-mkdir [-p] <path> ...]

[-moveFromLocal <localsrc> ... <dst>]

[-moveToLocal <src> <localdst>]

[-mv <src> ... <dst>]

[-put [-f] [-p] [-l] <localsrc> ... <dst>]

[-renameSnapshot <snapshotDir> <oldName> <newName>]

[-rm [-f] [-r|-R] [-skipTrash] <src> ...]

[-rmdir [--ignore-fail-on-non-empty] <dir> ...]

[-setfacl [-R] [{-b|-k} {-m|-x <acl\_spec>} <path>]|[--set <acl\_spec> <path>]]

[-setfattr {-n name [-v value] | -x name} <path>]

[-setrep [-R] [-w] <rep> <path> ...]

[-stat [format] <path> ...]

[-tail [-f] <file>]

[-test -[defsz] <path>]

[-text [-ignoreCrc] <src> ...]

[-touchz <path> ...]

[-truncate [-w] <length> <path> ...]

[-usage [cmd ...]]

Generic options supported are

-conf <configuration file> specify an application configuration file

-D <property=value> use value for given property

-fs <local|namenode:port> specify a namenode

-jt <local|resourcemanager:port> specify a ResourceManager

-files <comma separated list of files> specify comma separated files to be copied to the map reduce cluster

-libjars <comma separated list of jars> specify comma separated jar files to include in the classpath.

-archives <comma separated list of archives> specify comma separated archives to be unarchived on the compute machines.

The general command line syntax is

bin/hadoop command [genericOptions] [commandOptions]

#查看支持的命令

[root@master hadoop]# netstat -anput | grep java

tcp 0 0 0.0.0.0:50090 0.0.0.0:\* LISTEN 7007/java

tcp 0 0 192.168.4.4:50070 0.0.0.0:\* LISTEN 6824/java

tcp 0 0 192.168.4.4:9000 0.0.0.0:\* LISTEN 6824/java

tcp 0 0 192.168.4.4:9000 192.168.4.3:54494 ESTABLISHED 6824/java

tcp 0 0 192.168.4.4:9000 192.168.4.1:55606 ESTABLISHED 6824/java

tcp 0 0 192.168.4.4:9000 192.168.4.2:54004 ESTABLISHED 6824/java

#配置mapreduce

[root@master hadoop]# cp mapred-site.xml.template mapred-site.xml

[root@master hadoop]# sed -n "1,2p;19,30p" mapred-site.xml

<?xml version="1.0"?>

<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>

<configuration>

<!--jobtracker地址和端口-->

<property>

<name>mapreduce.jobtracker.http.address</name>

<value>master:50030</value>

</property>

<!--执行框架-->

<property>

<name>mapreduce.framework.name</name>

<value>yarn</value>

</property>

</configuration>

#配置yarn

[root@master hadoop]# sed -n "1p;15,24p" yarn-site.xml

<?xml version="1.0"?>

<configuration>

<property>

<name>yarn.resourcemanager.hostname</name>

<value>master</value>

</property>

<property>

<name>yarn.nodemanager.aux-services</name>

<value>mapreduce\_shuffle</value>

</property>

</configuration>

#分发配置文件

[root@master hadoop]# for i in node0{1..3};do

> rsync -aSH --delete /usr/local/hadoop/etc/hadoop/ $i:/usr/local/hadoop/etc/hadoop -e 'ssh' &

> done

[1] 9020

[2] 9021

[3] 9022

[root@master hadoop]# wait

[root@master hadoop]# cd /usr/local/hadoop/

[root@master hadoop]# ./sbin/start-yarn.sh

starting yarn daemons

resourcemanager running as process 9076. Stop it first.

node01: starting nodemanager, logging to /usr/local/hadoop/logs/yarn-root-nodemanager-node01.tedu.cn.out

node03: starting nodemanager, logging to /usr/local/hadoop/logs/yarn-root-nodemanager-node03.tedu.cn.out

node02: starting nodemanager, logging to /usr/local/hadoop/logs/yarn-root-nodemanager-node02.tedu.cn.out

[root@master hadoop]# jps

9076 ResourceManager

6824 NameNode

9691 Jps

7007 SecondaryNameNode

#测试结果

[root@node01 ~]# jps

10178 Jps

7332 DataNode

9880 NodeManager

[root@node02 ~]# jps

6466 NodeManager

4916 DataNode

6687 Jps

[root@node03 ~]# jps

7365 DataNode

9387 Jps

9133 NodeManager

[root@master hadoop]# netstat -anput | grep java

tcp 0 0 0.0.0.0:50090 0.0.0.0:\* LISTEN 7007/java

tcp 0 0 192.168.4.4:50070 0.0.0.0:\* LISTEN 6824/java

tcp 0 0 192.168.4.4:9000 0.0.0.0:\* LISTEN 6824/java

tcp 0 0 192.168.4.4:9000 192.168.4.3:54494 ESTABLISHED 6824/java

tcp 0 0 192.168.4.4:9000 192.168.4.1:55606 ESTABLISHED 6824/java

tcp 0 0 192.168.4.4:40710 192.168.4.4:9000 ESTABLISHED 7007/java

tcp 0 0 192.168.4.4:9000 192.168.4.4:40710 ESTABLISHED 6824/java

tcp 0 0 192.168.4.4:9000 192.168.4.2:54004 ESTABLISHED 6824/java

tcp6 0 0 192.168.4.4:8088 :::\* LISTEN 9076/java

tcp6 0 0 192.168.4.4:8030 :::\* LISTEN 9076/java

tcp6 0 0 192.168.4.4:8031 :::\* LISTEN 9076/java

tcp6 0 0 192.168.4.4:8032 :::\* LISTEN 9076/java

tcp6 0 0 192.168.4.4:8033 :::\* LISTEN 9076/java

tcp6 0 0 192.168.4.4:8031 192.168.4.3:60756 ESTABLISHED 9076/java

tcp6 0 0 192.168.4.4:8031 192.168.4.2:35424 ESTABLISHED 9076/java

tcp6 0 0 192.168.4.4:8031 192.168.4.1:55894 ESTABLISHED 9076/java

[root@master hadoop]# ./bin/yarn node -list

18/01/30 15:55:56 INFO client.RMProxy: Connecting to ResourceManager at master/192.168.4.4:8032

Total Nodes:3

Node-Id Node-State Node-Http-Address Number-of-Running-Containers

node02:33373 RUNNING node02:8042 0

node03:41052 RUNNING node03:8042 0

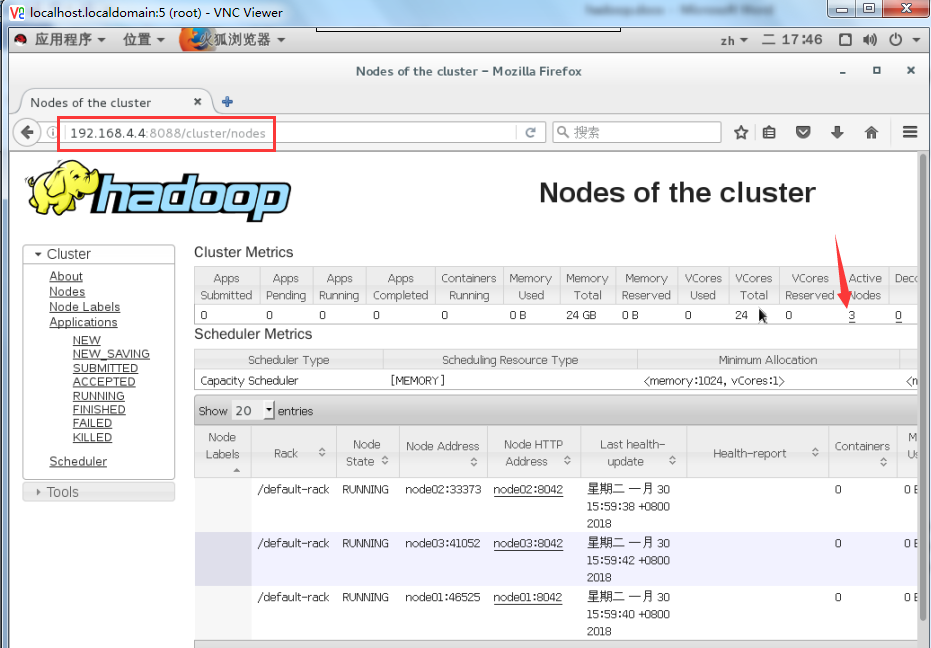
node01:46525 RUNNING node01:8042 0

[root@master hadoop]#

#验证结果

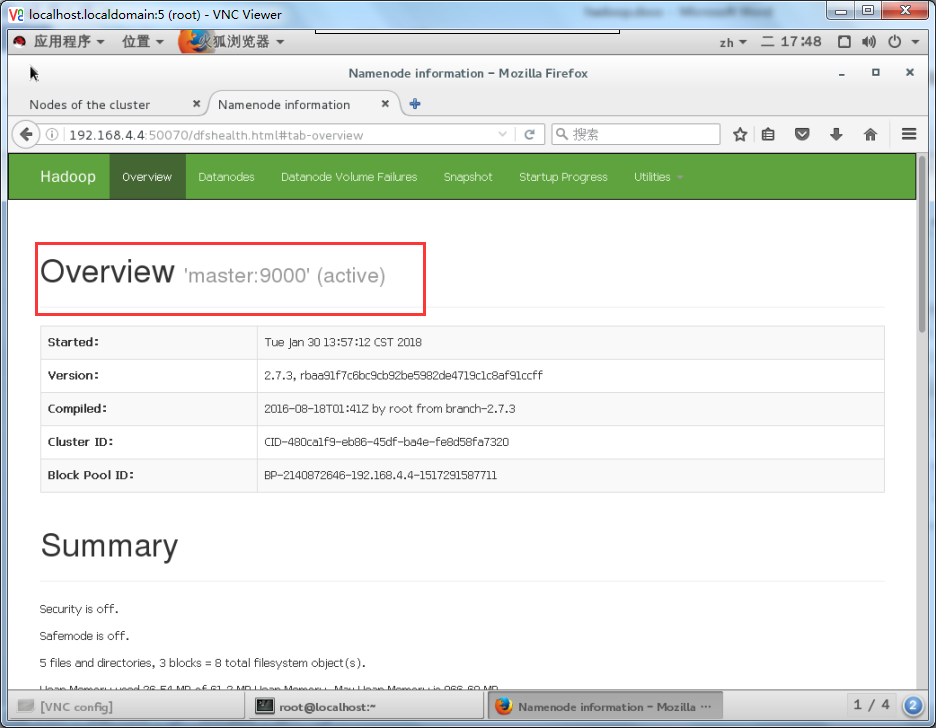
[root@localhost ~]# firefox http://192.168.4.4:8088 &

[1] 25426



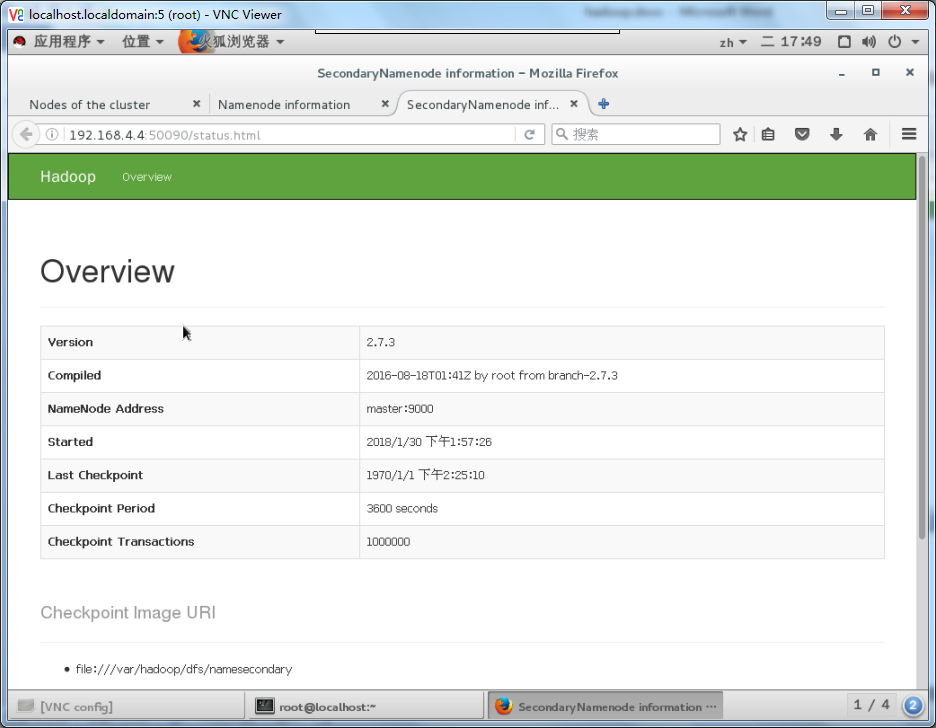
[root@localhost ~]# firefox http://192.168.4.4:50070 &

[2] 25557



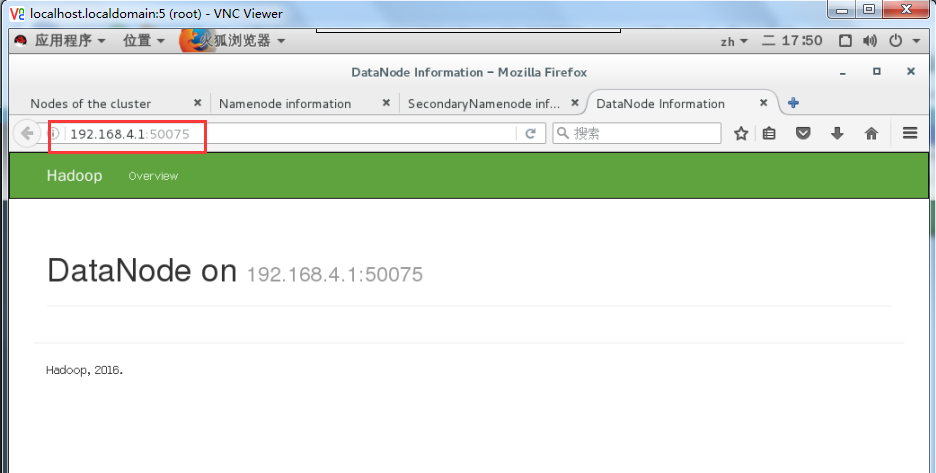
[root@localhost ~]# firefox http://192.168.4.4:50090 &

[3] 25639



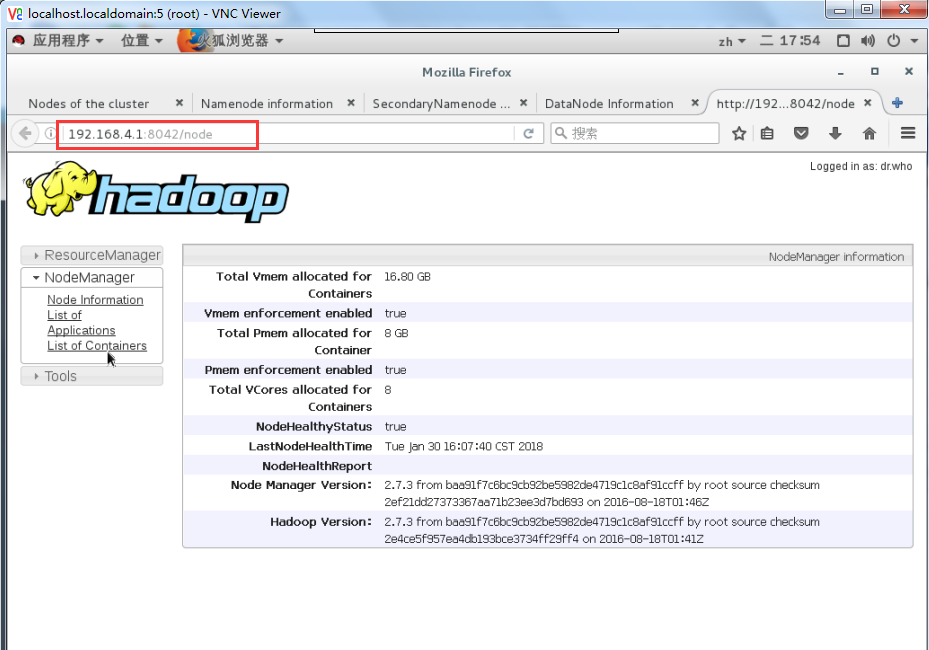
[root@localhost ~]# firefox http://192.168.4.1:50075 &

[4] 25709



[root@localhost ~]# firefox http://192.168.4.1:8042 &

[5] 25821



#实验操作

[root@master hadoop]# ./bin/hadoop fs -ls -R /

drwxr-xr-x - root supergroup 0 2018-01-30 14:11 /input

-rw-r--r-- 2 root supergroup 84854 2018-01-30 14:11 /input/LICENSE.txt

-rw-r--r-- 2 root supergroup 14978 2018-01-30 14:11 /input/NOTICE.txt

-rw-r--r-- 2 root supergroup 1366 2018-01-30 14:11 /input/README.txt

[root@master hadoop]# ./bin/hadoop jar share/hadoop/mapreduce/hadoop-mapreduce-examples-2.7.3.jar wordcount hdfs://master:9000/input hdfs://master:9000/output

18/01/30 17:13:28 INFO client.RMProxy: Connecting to ResourceManager at master/192.168.4.4:8032

18/01/30 17:13:30 INFO input.FileInputFormat: Total input paths to process : 3

18/01/30 17:13:30 INFO mapreduce.JobSubmitter: number of splits:3

18/01/30 17:13:30 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_1517298056790\_0001

18/01/30 17:13:32 INFO impl.YarnClientImpl: Submitted application application\_1517298056790\_0001

18/01/30 17:13:32 INFO mapreduce.Job: The url to track the job: http://master:8088/proxy/application\_1517298056790\_0001/

18/01/30 17:13:32 INFO mapreduce.Job: Running job: job\_1517298056790\_0001

18/01/30 17:13:50 INFO mapreduce.Job: Job job\_1517298056790\_0001 running in uber mode : false

18/01/30 17:13:50 INFO mapreduce.Job: map 0% reduce 0%

18/01/30 17:14:15 INFO mapreduce.Job: map 33% reduce 0%

18/01/30 17:14:21 INFO mapreduce.Job: map 100% reduce 0%

18/01/30 17:14:29 INFO mapreduce.Job: map 100% reduce 100%

18/01/30 17:14:29 INFO mapreduce.Job: Job job\_1517298056790\_0001 completed successfully

18/01/30 17:14:30 INFO mapreduce.Job: Counters: 50

File System Counters

FILE: Number of bytes read=42582

FILE: Number of bytes written=560057

FILE: Number of read operations=0

FILE: Number of large read operations=0

FILE: Number of write operations=0

HDFS: Number of bytes read=101499

HDFS: Number of bytes written=30052

HDFS: Number of read operations=12

HDFS: Number of large read operations=0

HDFS: Number of write operations=2

Job Counters

Killed map tasks=1

Launched map tasks=3

Launched reduce tasks=1

Data-local map tasks=3

Total time spent by all maps in occupied slots (ms)=77481

Total time spent by all reduces in occupied slots (ms)=12024

Total time spent by all map tasks (ms)=77481

Total time spent by all reduce tasks (ms)=12024

Total vcore-milliseconds taken by all map tasks=77481

Total vcore-milliseconds taken by all reduce tasks=12024

Total megabyte-milliseconds taken by all map tasks=79340544

Total megabyte-milliseconds taken by all reduce tasks=12312576

Map-Reduce Framework

Map input records=2030

Map output records=14232

Map output bytes=155593

Map output materialized bytes=42594

Input split bytes=301

Combine input records=14232

Combine output records=2651

Reduce input groups=2400

Reduce shuffle bytes=42594

Reduce input records=2651

Reduce output records=2400

Spilled Records=5302

Shuffled Maps =3

Failed Shuffles=0

Merged Map outputs=3

GC time elapsed (ms)=1630

CPU time spent (ms)=9490

Physical memory (bytes) snapshot=684027904

Virtual memory (bytes) snapshot=8402165760

Total committed heap usage (bytes)=380461056

Shuffle Errors

BAD\_ID=0

CONNECTION=0

IO\_ERROR=0

WRONG\_LENGTH=0

WRONG\_MAP=0

WRONG\_REDUCE=0

File Input Format Counters

Bytes Read=101198

File Output Format Counters

Bytes Written=30052

[root@master hadoop]# ./bin/hadoop fs -ls /output

Found 2 items

-rw-r--r-- 2 root supergroup 0 2018-01-30 17:14 /output/\_SUCCESS

-rw-r--r-- 2 root supergroup 30052 2018-01-30 17:14 /output/part-r-00000

[root@master hadoop]# ./bin/hadoop fs -cat /output/part-r-00000

#验证结果

##nfs网关

[root@master hadoop]# ./bin/hdfs dfsadmin -report

Configured Capacity: 23561502720 (21.94 GB)

Present Capacity: 17608974336 (16.40 GB)

DFS Remaining: 17608269824 (16.40 GB)

DFS Used: 704512 (688 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (3):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 339968 (332 KB)

Non DFS Used: 1792086016 (1.67 GB)

DFS Remaining: 6061408256 (5.65 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.18%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 17:28:26 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 258048 (252 KB)

Non DFS Used: 2367651840 (2.21 GB)

DFS Remaining: 5485924352 (5.11 GB)

DFS Used%: 0.00%

DFS Remaining%: 69.85%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 17:28:26 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 106496 (104 KB)

Non DFS Used: 1792790528 (1.67 GB)

DFS Remaining: 6060937216 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.17%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 17:28:27 CST 2018

[root@master hadoop]# cat /etc/hosts

127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4

::1 localhost localhost.localdomain localhost6 localhost6.localdomain6

192.168.4.1 node01 node01.tedu.cn

192.168.4.2 node02 node02.tedu.cn

192.168.4.3 node03 node03.tedu.cn

192.168.4.4 master master.tedu.cn

192.168.4.5 nfsgw nfsgw.tedu.cn

192.168.4.6 test02 test02.tedu.cn

[root@master hadoop]# scp /etc/hosts 192.168.4.1:/etc/

hosts 100% 361 0.4KB/s 00:00

[root@master hadoop]# scp /etc/hosts 192.168.4.2:/etc/

hosts 100% 361 0.4KB/s 00:00

[root@master hadoop]# scp /etc/hosts 192.168.4.3:/etc/

hosts 100% 361 0.4KB/s 00:00

#修改单机版hadoop为nfsgw

[root@nfsgw ~]# jps

1483 Jps

[root@nfsgw ~]# java -version

openjdk version "1.8.0\_102"

OpenJDK Runtime Environment (build 1.8.0\_102-b14)

OpenJDK 64-Bit Server VM (build 25.102-b14, mixed mode)

[root@nfsgw ~]# rm -rf hadoop\*

[root@nfsgw ~]# rm -rf /usr/local/hadoop/

[root@nfsgw ~]# rsync -aSH --delete master:/usr/local/hadoop /usr/local/ -e 'ssh'

[root@nfsgw hadoop]# tail -5 etc/hadoop/core-site.xml

<property>

<name>hadoop.tmp.dir</name>

<value>/var/hadoop</value>

</property>

[root@nfsgw hadoop]# ls logs/

hadoop-root-namenode-master.tedu.cn.log

hadoop-root-namenode-master.tedu.cn.out

hadoop-root-secondarynamenode-master.tedu.cn.log

hadoop-root-secondarynamenode-master.tedu.cn.out

SecurityAuth-root.audit

yarn-root-resourcemanager-master.tedu.cn.log

yarn-root-resourcemanager-master.tedu.cn.out

[root@nfsgw hadoop]# rm -rf logs/\*

[root@nfsgw hadoop]# rpm -qa | grep nfs #确认系统中没有nfs软件

[root@nfsgw hadoop]# yum remove rpcbind

已加载插件：langpacks, product-id, search-disabled-repos,

: subscription-manager

This system is not registered to Red Hat Subscription Management. You can use subscription-manager to register.

正在解决依赖关系

--> 正在检查事务

---> 软件包 rpcbind.x86\_64.0.0.2.0-38.el7 将被 删除

--> 正在处理依赖关系 rpcbind，它被软件包 1:quota-4.01-14.el7.x86\_64 需要

--> 正在检查事务

---> 软件包 quota.x86\_64.1.4.01-14.el7 将被 删除

--> 解决依赖关系完成

development | 4.1 kB 00:00

依赖关系解决

=====================================================

Package 架构 版本 源 大小

=====================================================

正在删除:

rpcbind x86\_64 0.2.0-38.el7 @anaconda/7.3 101 k

为依赖而移除:

quota x86\_64 1:4.01-14.el7 @anaconda/7.3 887 k

事务概要

=====================================================

移除 1 软件包 (+1 依赖软件包)

安装大小：988 k

是否继续？[y/N]：y

Downloading packages:

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

正在删除 : 1:quota-4.01-14.el7.x86\_64 1/2

正在删除 : rpcbind-0.2.0-38.el7.x86\_64 2/2

警告：文件 /var/lib/rpcbind: 移除失败: 没有那个文件或目录

验证中 : rpcbind-0.2.0-38.el7.x86\_64 1/2

验证中 : 1:quota-4.01-14.el7.x86\_64 2/2

删除:

rpcbind.x86\_64 0:0.2.0-38.el7

作为依赖被删除:

quota.x86\_64 1:4.01-14.el7

完毕！

[root@nfsgw hadoop]# rpm -qa | grep rpcbind

[root@nfsgw hadoop]# sed -n '1,2p;19,39p' etc/hadoop/core-site.xml

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>

<configuration>

<!--文件系统类型-->

<property>

<name>fs.defaultFS</name>

<value>hdfs://master:9000</value>

</property>

<!--数据存放路径-->

<property>

<name>hadoop.tmp.dir</name>

<value>/var/hadoop</value>

</property>

<!--设置nfs用户组-->

<property>

<name>hadoop.proxyuser.nfsuser.groups</name>

<value>\*</value>

</property>

<!--设置允许挂载主机-->

<property>

<name>hadoop.proxyuser.nfsuser.hosts</name>

<value>\*</value>

</property>

[root@nfsgw hadoop]# mkdir /var/hdfs-nfs

[root@nfsgw hadoop]# chown nfsuser.10 /var/hdfs-nfs/

[root@nfsgw hadoop]# chmod 775 /var/hdfs-nfs/

[root@nfsgw hadoop]# ll -d /var/hdfs-nfs/

drwxrwxr-x 2 nfsuser wheel 6 1月 31 10:55 /var/hdfs-nfs/

#创建转储目录

[root@nfsgw hadoop]# sed -n '1,2p;19,65p' etc/hadoop/

hdfs-site.xml

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>

<configuration>

<!--管理节点-->

<property>

<name>dfs.namenode.http-address</name>

<value>master:50070</value>

</property>

<!--备份管理节点-->

<property>

<name>fds.namenode.secondary.http-address</name>

<value>master:50090</value>

</property>

<!--数据备份数量-->

<property>

<name>dfs.replication</name>

<value>2</value>

</property>

<!--设置nfs主机权限-->

<property>

<name>nfs.exports.allowed.hosts</name>

<value>\* rw</value>

</property>

<!--访问更新时间-->

<property>

<name>dfs.namenode.accesstime.precsion</name>

<value>3600000</value>

</property>

<!--设置转储目录-->

<property>

<name>nfs.dump.dir</name>

<value>/var/hdfs-nfs</value>

</property>

<!--设置读buffer大小-->

<property>

<name>nfs.rtmax</name>

<value>4194034</value>

</property>

<!--设置写buffer大小-->

<property>

<name>nfs.wtmax</name>

<value>1048576</value>

</property>

<!--设置没有权限的客户端挂载nfs-->

<property>

<name>nfs.port.monitoring.disabled</name>

<value>true</value>

</property>

</configuration>

[root@master hadoop]# cat etc/hadoop/nfs.map

uid 0 1001

[root@master hadoop]# /usr/local/hadoop/sbin/stop-all.sh

This script is Deprecated. Instead use stop-dfs.sh and stop-yarn.sh

Stopping namenodes on [master]

master: stopping namenode

node02: stopping datanode

node03: stopping datanode

node01: stopping datanode

Stopping secondary namenodes [0.0.0.0]

0.0.0.0: stopping secondarynamenode

stopping yarn daemons

stopping resourcemanager

node03: stopping nodemanager

node01: stopping nodemanager

node02: stopping nodemanager

node03: nodemanager did not stop gracefully after 5 seconds: killing with kill -9

node01: nodemanager did not stop gracefully after 5 seconds: killing with kill -9

node02: nodemanager did not stop gracefully after 5 seconds: killing with kill -9

no proxyserver to stop

[root@master hadoop]# ./sbin/start-dfs.sh

Starting namenodes on [master]

master: starting namenode, logging to /usr/local/hadoop/logs/hadoop-root-namenode-master.tedu.cn.out

node01: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node01.tedu.cn.out

node02: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node02.tedu.cn.out

node03: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node03.tedu.cn.out

Starting secondary namenodes [0.0.0.0]

0.0.0.0: starting secondarynamenode, logging to /usr/local/hadoop/logs/hadoop-root-secondarynamenode-master.tedu.cn.out

[root@master hadoop]# ./bin/hdfs dfsadmin -report

Configured Capacity: 23561502720 (21.94 GB)

Present Capacity: 17603051520 (16.39 GB)

DFS Remaining: 17602347008 (16.39 GB)

DFS Used: 704512 (688 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (3):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 339968 (332 KB)

Non DFS Used: 1794781184 (1.67 GB)

DFS Remaining: 6058713088 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.14%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 19:07:50 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 258048 (252 KB)

Non DFS Used: 2369466368 (2.21 GB)

DFS Remaining: 5484109824 (5.11 GB)

DFS Used%: 0.00%

DFS Remaining%: 69.83%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 19:07:51 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 106496 (104 KB)

Non DFS Used: 1794203648 (1.67 GB)

DFS Remaining: 6059524096 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.15%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 19:07:52 CST 2018

[root@nfsgw hadoop]# chown root.wheel logs/

[root@nfsgw hadoop]# chmod 775 logs/

[root@nfsgw hadoop]# ll

总用量 108

drwxr-xr-x 2 root root 194 8月 18 2016 bin

drwxr-xr-x 3 root root 20 8月 18 2016 etc

drwxr-xr-x 2 root root 106 8月 18 2016 include

drwxr-xr-x 3 root root 20 8月 18 2016 lib

drwxr-xr-x 2 root root 239 8月 18 2016 libexec

-rw-r--r-- 1 root root 84854 8月 18 2016 LICENSE.txt

drwxrwxr-x 2 root wheel 6 1月 31 10:34 logs

-rw-r--r-- 1 root root 14978 8月 18 2016 NOTICE.txt

-rw-r--r-- 1 root root 1366 8月 18 2016 README.txt

drwxr-xr-x 2 root root 4096 8月 18 2016 sbin

drwxr-xr-x 4 root root 31 8月 18 2016 share

[root@nfsgw hadoop]# ./sbin/hadoop-daemon.sh --script

./bin/hdfs start portmap

starting portmap, logging to /usr/local/hadoop/logs/hadoop-root-portmap-nfsgw.tedu.cn.out

[root@nfsgw hadoop]# netstat -ltunp

Active Internet connections (only servers)

Proto Recv-Q Send-Q Local Address Foreign Address State PID/Program name

tcp 0 0 0.0.0.0:111 0.0.0.0:\* LISTEN 4046/java

tcp 0 0 0.0.0.0:22 0.0.0.0:\* LISTEN 895/sshd

tcp 0 0 127.0.0.1:25 0.0.0.0:\* LISTEN 1016/master

tcp6 0 0 :::22 :::\* LISTEN 895/sshd

tcp6 0 0 ::1:25 :::\* LISTEN 1016/master

udp 0 0 127.0.0.1:323 0.0.0.0:\* 531/chronyd

udp 0 0 0.0.0.0:111 0.0.0.0:\* 4046/java

udp6 0 0 ::1:323 :::\* 531/chronyd

[root@nfsgw hadoop]# jps

4450 Jps

4046 Portmap

[root@nfsgw hadoop]# su -l nfsuser

上一次登录：三 1月 31 11:27:07 CST 2018pts/0 上

[nfsuser@nfsgw ~]$ cd /usr/local/hadoop/

[nfsuser@nfsgw hadoop]$ ./sbin/hadoop-daemon.sh --script ./bin/hdfs start nfs3

starting nfs3, logging to /usr/local/hadoop/logs/hadoop-nfsuser-nfs3-nfsgw.tedu.cn.out

[nfsuser@nfsgw hadoop]$ jps

4352 Jps

4303 Nfs3

[root@nfsgw hadoop]# jps

4474 Jps

4046 Portmap

4303 Nfs3

[root@nfsgw hadoop]# netstat -lunpt

Active Internet connections (only servers)

Proto Recv-Q Send-Q Local Address Foreign Address State PID/Program name

tcp 0 0 0.0.0.0:111 0.0.0.0:\* LISTEN 4046/java

tcp 0 0 0.0.0.0:4242 0.0.0.0:\* LISTEN 4303/java

tcp 0 0 0.0.0.0:22 0.0.0.0:\* LISTEN 895/sshd

tcp 0 0 127.0.0.1:25 0.0.0.0:\* LISTEN 1016/master

tcp 0 0 0.0.0.0:50079 0.0.0.0:\* LISTEN 4303/java

tcp 0 0 0.0.0.0:2049 0.0.0.0:\* LISTEN 4303/java

tcp6 0 0 :::22 :::\* LISTEN 895/sshd

tcp6 0 0 ::1:25 :::\* LISTEN 1016/master

udp 0 0 127.0.0.1:323 0.0.0.0:\* 531/chronyd

udp 0 0 0.0.0.0:111 0.0.0.0:\* 4046/java

udp 0 0 0.0.0.0:4242 0.0.0.0:\* 4303/java

udp6 0 0 ::1:323 :::\* 531/chronyd

[root@nfsgw hadoop]# scp core-site.xml 192.168.4.4:/usr/local/hadoop/etc/hadoop/

root@192.168.4.4's password:

core-site.xml 100% 1242 1.2KB/s 00:00

[root@nfsgw hadoop]# scp hdfs-site.xml 192.168.4.4:/usr/local/hadoop/etc/hadoop/

root@192.168.4.4's password:

hdfs-site.xml 100% 1829 1.8KB/s 00:00

[root@master hadoop]# id nfsuser

uid=1000(nfsuser) gid=10(wheel) 组=10(wheel)

[root@master hadoop]# cd ../..

[root@master hadoop]# ./sbin/stop-all.sh

This script is Deprecated. Instead use stop-dfs.sh and stop-yarn.sh

Stopping namenodes on [master]

master: no namenode to stop

node01: no datanode to stop

node03: no datanode to stop

node02: no datanode to stop

Stopping secondary namenodes [0.0.0.0]

0.0.0.0: no secondarynamenode to stop

stopping yarn daemons

no resourcemanager to stop

node01: no nodemanager to stop

node02: no nodemanager to stop

node03: no nodemanager to stop

no proxyserver to stop

[root@master hadoop]# ./sbin/start-dfs.sh

Starting namenodes on [master]

master: starting namenode, logging to /usr/local/hadoop/logs/hadoop-root-namenode-master.tedu.cn.out

node01: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node01.tedu.cn.out

node03: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node03.tedu.cn.out

node02: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node02.tedu.cn.out

Starting secondary namenodes [0.0.0.0]

0.0.0.0: starting secondarynamenode, logging to /usr/local/hadoop/logs/hadoop-root-secondarynamenode-master.tedu.cn.out

[root@master hadoop]# ./bin/hdfs dfsadmin -report

Safe mode is ON

Configured Capacity: 23561502720 (21.94 GB)

Present Capacity: 17601765376 (16.39 GB)

DFS Remaining: 17601048576 (16.39 GB)

DFS Used: 716800 (700 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (3):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 344064 (336 KB)

Non DFS Used: 1795145728 (1.67 GB)

DFS Remaining: 6058344448 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.14%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 20:11:38 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 262144 (256 KB)

Non DFS Used: 2370871296 (2.21 GB)

DFS Remaining: 5482700800 (5.11 GB)

DFS Used%: 0.00%

DFS Remaining%: 69.81%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 20:11:35 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 110592 (108 KB)

Non DFS Used: 1793720320 (1.67 GB)

DFS Remaining: 6060003328 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.16%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 20:11:37 CST 2018

[root@nfsgw ~]# id nfsuser

uid=1000(nfsuser) gid=10(wheel) 组=10(wheel)

[root@nfsgw ~]# cd /usr/local/hadoop/

[root@nfsgw hadoop]# ./sbin/hadoop-daemon.sh --script ./bin/hdfs stop portmap

stopping portmap

[root@nfsgw hadoop]# su -l nfsuer

su: user nfsuer does not exist

[root@nfsgw hadoop]# su -l nfsuser

上一次登录：三 1月 31 11:28:51 CST 2018pts/0 上

[nfsuser@nfsgw ~]$ cd /usr/local/hadoop/

[nfsuser@nfsgw hadoop]$ ./sbin/hadoop-daemon.sh --script ./bin/hdfs stop nfs3

stopping nfs3

[nfsuser@nfsgw hadoop]$ jps

6007 Jps

[nfsuser@nfsgw hadoop]$ exit

登出

[root@nfsgw hadoop]# jps

6017 Jps

[root@nfsgw hadoop]# ./sbin/hadoop-daemon.sh --script ./bin/hdfs start portmap

starting portmap, logging to /usr/local/hadoop/logs/hadoop-root-portmap-nfsgw.tedu.cn.out

[root@nfsgw hadoop]# jps

6085 Jps

6045 Portmap

[root@nfsgw hadoop]# su -l nfsuser

上一次登录：三 1月 31 12:26:13 CST 2018pts/1 上

[nfsuser@nfsgw ~]$ cd /usr/local/hadoop/

[nfsuser@nfsgw hadoop]$ jps

6148 Jps

[nfsuser@nfsgw hadoop]$ ./sbin/hadoop-daemon.sh --script ./bin/hdfs start nfs3

starting nfs3, logging to /usr/local/hadoop/logs/hadoop-nfsuser-nfs3-nfsgw.tedu.cn.out

[nfsuser@nfsgw hadoop]$ jps

6180 Nfs3

6229 Jps

[nfsuser@nfsgw hadoop]$ exit

登出

[root@nfsgw hadoop]# jps

6180 Nfs3

6045 Portmap

6239 Jps

[root@nfsgw hadoop]# netstat -antpu

Active Internet connections (servers and established)

Proto Recv-Q Send-Q Local Address Foreign Ad

tcp 0 0 0.0.0.0:111 0.0.0.0:\*

tcp 0 0 0.0.0.0:4242 0.0.0.0:\*

tcp 0 0 0.0.0.0:22 0.0.0.0:\*

tcp 0 0 127.0.0.1:25 0.0.0.0:\*

tcp 0 0 0.0.0.0:50079 0.0.0.0:\*

tcp 0 0 0.0.0.0:2049 0.0.0.0:\*

tcp 0 0 192.168.4.5:22 192.168.4.

tcp 0 0 192.168.4.5:22 192.168.4.

tcp6 0 0 :::22 :::\*

tcp6 0 0 ::1:25 :::\*

udp 0 0 127.0.0.1:323 0.0.0.0:\*

udp 0 0 0.0.0.0:111 0.0.0.0:\*

udp 0 0 0.0.0.0:4242 0.0.0.0:\*

udp6 0 0 ::1:323 :::\*

[root@nfsgw hadoop]# tail -2 logs/hadoop-root-portmap-nfsgw.tedu.cn.log

2018-01-31 12:27:52,914 INFO org.apache.hadoop.portmap.Portmap: registered UNIX signal handlers for [TERM, HUP, INT]

2018-01-31 12:27:53,138 INFO org.apache.hadoop.portmap.Portmap: Portmap server started at tcp:///0.0.0.0:111, udp:///0.0.0.0:111

#提示为info

[root@nfsgw hadoop]# cat logs/hadoop-nfsuser-nfs3-nfsgw.tedu.cn.log #提示为info

[root@nfsgw hadoop]# tail -f logs/hadoop-nfsuser-nfs3-nfsgw.tedu.cn.log

#测试挂载

[root@test02 ~]# rpm -qa | grep nfs

libnfsidmap-0.25-15.el7.x86\_64

nfs-utils-1.3.0-0.33.el7.x86\_64

[root@test02 ~]# ls /mnt/

[root@test02 ~]# mount -v -t nfs -o vers=3,proto=tcp,noatime,nolock,noacl,sync 192.168.4.5:/ /mnt

mount.nfs: timeout set for Wed Jan 31 12:41:25 2018

mount.nfs: trying text-based options 'vers=3,proto=tcp,nolock,noacl,addr=192.168.4.5'

mount.nfs: prog 100003, trying vers=3, prot=6

mount.nfs: trying 192.168.4.5 prog 100003 vers 3 prot TCP port 2049

mount.nfs: prog 100005, trying vers=3, prot=6

mount.nfs: trying 192.168.4.5 prog 100005 vers 3 prot TCP port 4242

[root@test02 ~]# ls /mnt/

input output tmp

#查看日志监控端，提示信息全为info

#测试关联状态

[root@master hadoop]# ./bin/hadoop fs -touchz /abc.txt

[root@master hadoop]# ./bin/hadoop fs -ls /

Found 4 items

-rw-r--r-- 2 root supergroup 0 2018-01-30 20:36 /abc.txt

drwxr-xr-x - root supergroup 0 2018-01-30 14:11 /input

drwxr-xr-x - root supergroup 0 2018-01-30 17:14 /output

drwx------ - root supergroup 0 2018-01-30 17:13 /tmp

[root@test02 ~]# ls /mnt/

abc.txt input output tmp

[root@test02 ~]# touch /mnt/abc.sh

[root@test02 ~]# ls /mnt/

abc.sh abc.txt input output tmp

[root@master hadoop]# ./bin/hadoop fs -ls /

Found 5 items

-rw-r--r-- 2 root root 0 2018-01-31 12:57 /abc.sh

-rw-r--r-- 2 root supergroup 0 2018-01-30 20:36 /abc.txt

drwxr-xr-x - root supergroup 0 2018-01-30 14:11 /input

drwxr-xr-x - root supergroup 0 2018-01-30 17:14 /output

drwx------ - root supergroup 0 2018-01-30 17:13 /tmp

##向集群中添加DataNode节点

[root@nfsgw hadoop]# su -l nfsuser

上一次登录：三 1月 31 12:30:15 CST 2018pts/1 上

[nfsuser@nfsgw ~]$ cd /usr/local/hadoop/

[nfsuser@nfsgw hadoop]$ ./sbin/hadoop-daemon.sh --script ./bin/hdfs stop nfs3

stopping nfs3

[nfsuser@nfsgw hadoop]$ jps

7644 Jps

[nfsuser@nfsgw hadoop]$ exit

登出

[root@nfsgw hadoop]# ./sbin/hadoop-daemon.sh --script ./bin/hdfs stop portmap

stopping portmap

[root@nfsgw hadoop]# jps

7720 Jps

[root@master hadoop]# ./bin/hdfs dfsadmin -report

Configured Capacity: 23561502720 (21.94 GB)

Present Capacity: 17603072000 (16.39 GB)

DFS Remaining: 17602355200 (16.39 GB)

DFS Used: 716800 (700 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (3):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 344064 (336 KB)

Non DFS Used: 1795399680 (1.67 GB)

DFS Remaining: 6058090496 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.14%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 21:08:37 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 262144 (256 KB)

Non DFS Used: 2369118208 (2.21 GB)

DFS Remaining: 5484453888 (5.11 GB)

DFS Used%: 0.00%

DFS Remaining%: 69.83%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 21:08:37 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 110592 (108 KB)

Non DFS Used: 1793912832 (1.67 GB)

DFS Remaining: 6059810816 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.16%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 21:08:35 CST 2018

[root@master hadoop]# ssh-copy-id root@192.168.4.5

/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed

/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys

root@192.168.4.5's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'root@192.168.4.5'"

and check to make sure that only the key(s) you wanted were added.

[root@master hadoop]# ssh 192.168.4.5

Last login: Wed Jan 31 12:13:31 2018 from 192.168.4.254

[root@nfsgw ~]# exit

登出

Connection to 192.168.4.5 closed.

[root@master hadoop]# ssh nfsgw

Last login: Wed Jan 31 13:20:40 2018 from master

[root@nfsgw ~]# exit

登出

Connection to nfsgw closed.

#设置免密登录

[root@master hadoop]# cat etc/hadoop/slaves

node01

node02

node03

nfsgw

#添加节点

[root@master hadoop]# rsync -aSH --delete /usr/local/hadoop/ 192.168.4.5:/usr/local/hadoop -e 'ssh' &

[3] 18380

[2] 完成 rsync -aSH --delete /usr/local/hadoop/ 192.168.4.5:/usr/local/hadoop -e 'ssh'

[root@nfsgw ~]# ls /usr/local/hadoop/

bin etc include lib libexec LICENSE.txt logs NOTICE.txt README.txt sbin share

[root@nfsgw ~]# cd /usr/local/hadoop/

[root@nfsgw hadoop]# rm -rf logs/\*

[root@nfsgw hadoop]# ./sbin/hadoop-daemon.sh start datanode

starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-nfsgw.tedu.cn.out

[root@nfsgw hadoop]# ls logs/

hadoop-root-datanode-nfsgw.tedu.cn.log

hadoop-root-datanode-nfsgw.tedu.cn.out

SecurityAuth-root.audit

[root@nfsgw hadoop]# cat logs/hadoop-root-datanode-nfsgw.tedu.cn.log

#提示信息为info

[root@master hadoop]# ./bin/hdfs dfsadmin -report

Configured Capacity: 31415336960 (29.26 GB)

Present Capacity: 23238397952 (21.64 GB)

DFS Remaining: 23237677056 (21.64 GB)

DFS Used: 720896 (704 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (4):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 344064 (336 KB)

Non DFS Used: 1795506176 (1.67 GB)

DFS Remaining: 6057984000 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.13%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 21:22:34 CST 2018

Name: 192.168.4.5:50010 (nfsgw)

Hostname: test01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 4096 (4 KB)

Non DFS Used: 2215985152 (2.06 GB)

DFS Remaining: 5637844992 (5.25 GB)

DFS Used%: 0.00%

DFS Remaining%: 71.78%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 21:22:34 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 262144 (256 KB)

Non DFS Used: 2371100672 (2.21 GB)

DFS Remaining: 5482471424 (5.11 GB)

DFS Used%: 0.00%

DFS Remaining%: 69.81%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 21:22:34 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 110592 (108 KB)

Non DFS Used: 1794347008 (1.67 GB)

DFS Remaining: 6059376640 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.15%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 21:22:36 CST 2018

#nfsgw节点加入到集群中

[root@nfsgw hadoop]# sed -n '65,69p' etc/hadoop/hdfs-site.xml

<!--设置同步带宽-->

<property>

<name>dfs.balance.bandwidthPerSec</name>

<value>10485760</value>

</property>

#不用修改配置文件的方法就用

[root@nfsgw hadoop]#./bin/hdfs dfsamdin -setBalanceBandwidth 10485760这种方法

[root@nfsgw hadoop]# ./sbin/start-balancer.sh -threshold 5

starting balancer, logging to /usr/local/hadoop/logs/hadoop-root-balancer-nfsgw.tedu.cn.out

[root@nfsgw hadoop]# ./bin/hadoop fs -ls /

Found 6 items

-rw-r--r-- 2 root root 0 2018-01-30 20:56 /abc.sh

-rw-r--r-- 2 root supergroup 0 2018-01-30 20:36 /abc.txt

drwxr-xr-x - root supergroup 0 2018-01-30 14:11 /input

drwxr-xr-x - root supergroup 0 2018-01-30 17:14 /output

drwxr-xr-x - root supergroup 0 2018-01-30 22:16 /system

drwx------ - root supergroup 0 2018-01-30 17:13 /tmp

##确认数据已同步

[root@nfsgw hadoop]# cat logs/hadoop-root-balancer-nfsgw.tedu.cn.log #日志中提示全是info

##添加节点成功

[root@master hadoop]# sed -n '65,69p' etc/hadoop/hdfs-site.xml

<!--删除节点配置-->

<property>

<name>dfs.hosts.exclude</name>

<value>/usr/local/hadoop/etc/hadoop/exclude</value>

</property>

[root@master hadoop]# cat etc/hadoop/exclude

nfsgw

[root@master hadoop]# ./bin/hdfs dfsadmin -refreshNodes

Refresh nodes successful

[root@master hadoop]# ./bin/hdfs dfsadmin -report

Configured Capacity: 23561510912 (21.94 GB)

Present Capacity: 17596547072 (16.39 GB)

DFS Remaining: 17595822080 (16.39 GB)

DFS Used: 724992 (708 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (4):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 344064 (336 KB)

Non DFS Used: 1798090752 (1.67 GB)

DFS Remaining: 6055399424 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.10%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 22:58:59 CST 2018

Name: 192.168.4.5:50010 (nfsgw)

Hostname: test01

Decommission Status : Decommissioned

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 8192 (8 KB)

Non DFS Used: 2216161280 (2.06 GB)

DFS Remaining: 5637664768 (5.25 GB)

DFS Used%: 0.00%

DFS Remaining%: 71.78%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 22:58:59 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 262144 (256 KB)

Non DFS Used: 2371518464 (2.21 GB)

DFS Remaining: 5482053632 (5.11 GB)

DFS Used%: 0.00%

DFS Remaining%: 69.80%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 22:58:59 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 110592 (108 KB)

Non DFS Used: 1795354624 (1.67 GB)

DFS Remaining: 6058369024 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.14%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 22:59:00 CST 2018

#被删除节点状态改变

[root@nfsgw hadoop]# ./sbin/hadoop-daemon.sh stop datanode

stopping datanode

[root@master hadoop]# ./sbin/hadoop-daemon.sh stop namenode

stopping namenode

[root@master hadoop]# ./sbin/hadoop-daemon.sh start namenode

starting namenode, logging to /usr/local/hadoop/logs/hadoop-root-namenode-master.tedu.cn.out

[root@master hadoop]# ./bin/hdfs dfsadmin -report

Safe mode is ON

Configured Capacity: 23561502720 (21.94 GB)

Present Capacity: 17596006400 (16.39 GB)

DFS Remaining: 17595289600 (16.39 GB)

DFS Used: 716800 (700 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (3):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 344064 (336 KB)

Non DFS Used: 1798356992 (1.67 GB)

DFS Remaining: 6055133184 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.10%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 23:00:51 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 262144 (256 KB)

Non DFS Used: 2372227072 (2.21 GB)

DFS Remaining: 5481345024 (5.10 GB)

DFS Used%: 0.00%

DFS Remaining%: 69.79%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 23:00:51 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 110592 (108 KB)

Non DFS Used: 1794912256 (1.67 GB)

DFS Remaining: 6058811392 (5.64 GB)

DFS Used%: 0.00%

DFS Remaining%: 77.14%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Tue Jan 30 23:00:51 CST 2018

##重启服务，节点被彻底删除

#部署zookeeper集群

[root@master ~]# tar -xf zookeeper-3.4.10.tar.gz

[root@master ~]# mv zookeeper-3.4.10 /usr/local/zookeeper

[root@master ~]# cd /usr/local/zookeeper/

[root@master zookeeper]# ls

bin NOTICE.txt

build.xml README\_packaging.txt

conf README.txt

contrib recipes

dist-maven src

docs zookeeper-3.4.10.jar

ivysettings.xml zookeeper-3.4.10.jar.asc

ivy.xml zookeeper-3.4.10.jar.md5

lib zookeeper-3.4.10.jar.sha1

LICENSE.txt

[root@master zookeeper]# cd conf/

[root@master conf]# cp zoo\_sample.cfg zoo.cfg

[root@master conf]# mkdir -p /tmp/zookeeper

[root@master conf]# for i in node0{1..3}; do ssh $i 'mkdir -p /tmp/zookeeper'; done

X11 forwarding request failed on channel 0

X11 forwarding request failed on channel 0

X11 forwarding request failed on channel 0

[root@master conf]# cat zoo.cfg | grep -v ^#

tickTime=2000

initLimit=10

syncLimit=5

dataDir=/tmp/zookeeper

clientPort=2181

server.1=node01:2888:3888

server.2=node02:2888:3888

server.3=node03:2888:3888

server.4=master:2888:3888:observer

[root@master conf]# for i in node0{1..3};do

> rsync -a --delete /usr/local/zookeeper $i:/usr/local/ -e 'ssh' &

> done

[1] 2761

[2] 2762

[3] 2763

[root@master conf]# X11 forwarding request failed on channel 0

X11 forwarding request failed on channel 0

X11 forwarding request failed on channel 0

[1] 完成 rsync -a --delete /usr/local/zookeeper $i:/usr/local/ -e 'ssh'

[2]- 完成 rsync -a --delete /usr/local/zookeeper $i:/usr/local/ -e 'ssh'

[3]+ 完成 rsync -a --delete /usr/local/zookeeper $i:/usr/local/ -e 'ssh'

[root@master conf]# wait

[root@master conf]# echo 4 > /tmp/zookeeper/myid

[root@localhost ~]# ssh 192.168.4.1

root@192.168.4.1's password:

X11 forwarding request failed on channel 0

Last login: Fri Feb 2 11:20:47 2018 from 192.168.4.254

[root@node01 ~]# echo 1 > /tmp/zookeeper/myid

[root@node01 ~]# exit

登出

Connection to 192.168.4.1 closed.

[root@localhost ~]# ssh 192.168.4.2

root@192.168.4.2's password:

X11 forwarding request failed on channel 0

Last login: Fri Feb 2 11:20:57 2018 from 192.168.4.254

[root@node02 ~]# echo 2 > /tmp/zookeeper/myid

[root@node02 ~]# exit

登出

Connection to 192.168.4.2 closed.

[root@localhost ~]# ssh 192.168.4.3

root@192.168.4.3's password:

X11 forwarding request failed on channel 0

Last login: Fri Feb 2 11:21:05 2018 from 192.168.4.254

[root@node03 ~]# echo 3 > /tmp/zookeeper/myid

[root@node03 ~]# exit

登出

Connection to 192.168.4.3 closed.

#启动服务

[root@master conf]# cd ..

[root@master zookeeper]# ./bin/zkServer.sh start

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Starting zookeeper ... STARTED

[root@master zookeeper]# jps

4040 QuorumPeerMain

3577 SecondaryNameNode

4059 Jps

3372 NameNode

3742 ResourceManager

[root@master zookeeper]# for i in node0{1..3}; do

> ssh $i '/usr/local/zookeeper/bin/zkServer.sh start'> done

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Starting zookeeper ... STARTED

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Starting zookeeper ... STARTED

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Starting zookeeper ... Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

STARTED

[root@master zookeeper]# for i in node0{1..3}; do ssh $i '/usr/local/zookeeper/bin/zkServer.sh status'; done

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: follower

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: leader

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: follower

[root@master zookeeper]# for i in node0{1..3}; do ssh $i 'jps'; done

X11 forwarding request failed on channel 0

4530 DataNode

4870 QuorumPeerMain

4935 Jps

4683 NodeManager

X11 forwarding request failed on channel 0

4293 QuorumPeerMain

4120 NodeManager

3999 DataNode

4367 Jps

X11 forwarding request failed on channel 0

2292 NodeManager

2182 DataNode

2509 QuorumPeerMain

2607 Jps

#测试停掉leader

[root@master ~]# for i in node0{1..3};do ssh $i '/usr/local/zookeeper/bin/zkServer.sh status'; done

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: follower

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Error contacting service. It is probably not running.

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: leader

#leader节点改变

[root@node03 ~]# /usr/local/zookeeper/bin/zkServer.sh stop

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Stopping zookeeper ... STOPPED

[root@master ~]# for i in node0{1..3};do ssh $i '/usr/local/zookeeper/bin/zkServer.sh status'; done

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Error contacting service. It is probably not running.

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Error contacting service. It is probably not running.

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Error contacting service. It is probably not running.

#集群中超过半数的服务器宕机，集群挂起

##当集群被挂起时，所有节点都停止工作

[root@node03 ~]# /usr/local/zookeeper/bin/zkServer.sh start

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Starting zookeeper ... STARTED

[root@node03 ~]# exit

登出

Connection to 192.168.4.3 closed.

[root@localhost ~]# ssh 192.168.4.2

root@192.168.4.2's password:

X11 forwarding request failed on channel 0

Last login: Fri Feb 2 12:42:11 2018 from 192.168.4.254

[root@node02 ~]# /usr/local/zookeeper/bin/zkServer.sh start

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Starting zookeeper ... STARTED

[root@master ~]# for i in node0{1..3};do ssh $i '/usr/local/zookeeper/bin/zkServer.sh status'; done

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: follower

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: follower

X11 forwarding request failed on channel 0

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: leader

#节点修复以后集群恢复

[root@master ~]# /usr/local/zookeeper/bin/zkServer.sh status

ZooKeeper JMX enabled by default

Using config: /usr/local/zookeeper/bin/../conf/zoo.cfg

Mode: observer

[root@master ~]# { echo "stat"; yes; }|telnet 192.168.4.4 2128

Trying 192.168.4.4...

telnet: connect to address 192.168.4.4: Connection refused

[root@master ~]# { echo "stat"; yes; }|telnet 192.168.4.4 2181

Trying 192.168.4.4...

Connected to 192.168.4.4.

Escape character is '^]'.

Zookeeper version: 3.4.10-39d3a4f269333c922ed3db283be479f9deacaa0f, built on 03/23/2017 10:13 GMT

Clients:

/192.168.4.4:58898[0](queued=0,recved=1,sent=0)

Latency min/avg/max: 0/0/0

Received: 2

Sent: 1

Connections: 1

Outstanding: 0

Zxid: 0x300000000

Mode: observer

Node count: 4

Connection closed by foreign host.

[root@master ~]# { echo "stat"; yes; }|telnet 192.168.4.1 2181

Trying 192.168.4.1...

Connected to 192.168.4.1.

Escape character is '^]'.

Zookeeper version: 3.4.10-39d3a4f269333c922ed3db283be479f9deacaa0f, built on 03/23/2017 10:13 GMT

Clients:

/192.168.4.4:57784[0](queued=0,recved=1,sent=0)

Latency min/avg/max: 0/0/0

Received: 2

Sent: 1

Connections: 1

Outstanding: 0

Zxid: 0x100000000

Mode: follower

Node count: 4

Connection closed by foreign host.

[root@master ~]# { echo "mntr"; yes; }|telnet 192.168.4.1 2181

Trying 192.168.4.1...

Connected to 192.168.4.1.

Escape character is '^]'.

zk\_version 3.4.10-39d3a4f269333c922ed3db283be479f9deacaa0f, built on 03/23/2017 10:13 GMT

zk\_avg\_latency 0

zk\_max\_latency 0

zk\_min\_latency 0

zk\_packets\_received 3

zk\_packets\_sent 2

zk\_num\_alive\_connections 1

zk\_outstanding\_requests 0

zk\_server\_state follower

zk\_znode\_count 4

zk\_watch\_count 0

zk\_ephemerals\_count 0

zk\_approximate\_data\_size 27

zk\_open\_file\_descriptor\_count 32

zk\_max\_file\_descriptor\_count 4096

Connection closed by foreign host.

#查看集群状态

##部署kafka集群

[root@master ~]# tar -xf kafka\_2.10-0.10.2.1.tgz

[root@master ~]# mv kafka\_2.10-0.10.2.1 /usr/local/kafka

[root@master ~]# cd /usr/local/kafka/config/

[root@master config]# cat server.properties | grep -v ^# | grep -v ^$

broker.id=4

num.network.threads=3

num.io.threads=8

socket.send.buffer.bytes=102400

socket.receive.buffer.bytes=102400

socket.request.max.bytes=104857600

log.dirs=/tmp/kafka-logs

num.partitions=1

num.recovery.threads.per.data.dir=1

log.retention.hours=168

log.segment.bytes=1073741824

log.retention.check.interval.ms=300000

zookeeper.connect=node01:2181,node02:2181

zookeeper.connection.timeout.ms=6000

[root@master config]# for i in node0{1..3}; do rsync -a --delete /usr/local/kafka $i:/usr/local/ -e 'ssh' & done

[root@master config]# wait

[root@master kafka]# ./bin/kafka-server-start.sh -daemon ./config/server.properties

[root@master kafka]# jps

7412 Kafka

4040 QuorumPeerMain

7432 Jps

3577 SecondaryNameNode

3372 NameNode

3742 ResourceManager

[root@master kafka]# netstat -antpu | grep :9092

tcp6 0 0 :::9092 :::\* LISTEN 7412/java

tcp6 0 0 192.168.4.4:37466 192.168.4.4:9092 ESTABLISHED 7412/java

tcp6 0 0 192.168.4.4:9092 192.168.4.4:37466 ESTABLISHED 7412/java

[root@node01 kafka]# cat config/server.properties | grep -v ^# | grep -v ^$

broker.id=1

num.network.threads=3

num.io.threads=8

socket.send.buffer.bytes=102400

socket.receive.buffer.bytes=102400

socket.request.max.bytes=104857600

log.dirs=/tmp/kafka-logs

num.partitions=1

num.recovery.threads.per.data.dir=1

log.retention.hours=168

log.segment.bytes=1073741824

log.retention.check.interval.ms=300000

zookeeper.connect=node01:2181,node02:2181

zookeeper.connection.timeout.ms=6000

[root@node01 kafka]# ./bin/kafka-server-start.sh -daemon ./config/server.properties

[root@node01 kafka]# jps

4530 DataNode

4870 QuorumPeerMain

7142 Jps

4683 NodeManager

7118 Kafka

[root@node01 kafka]# netstat -antpu | grep :9092

tcp6 0 0 :::9092 :::\* LISTEN 7118/java

tcp6 0 0 192.168.4.1:9092 192.168.4.4:34540 ESTABLISHED 7118/java

[root@node02 kafka]# cat config/server.properties | grep -v ^$ | grep -v ^#

broker.id=2

num.network.threads=3

num.io.threads=8

socket.send.buffer.bytes=102400

socket.receive.buffer.bytes=102400

socket.request.max.bytes=104857600

log.dirs=/tmp/kafka-logs

num.partitions=1

num.recovery.threads.per.data.dir=1

log.retention.hours=168

log.segment.bytes=1073741824

log.retention.check.interval.ms=300000

zookeeper.connect=node01:2181,node02:2181

zookeeper.connection.timeout.ms=6000

[root@node02 kafka]# ./bin/kafka-server-start.sh -daemon ./config/server.properties

[root@node02 kafka]# jps

4120 NodeManager

5114 QuorumPeerMain

6333 Kafka

6350 Jps

3999 DataNode

[root@node02 kafka]# netstat -antpu | grep :9092

tcp6 0 0 :::9092 :::\* LISTEN 6333/java

tcp6 0 0 192.168.4.2:9092 192.168.4.4:52828 ESTABLISHED 6333/java

[root@node03 ~]# cd /usr/local/kafka/

[root@node03 kafka]# vim config/server.properties

[root@node03 kafka]# cat config/server.properties | grep -v ^# | grep -v ^$

broker.id=3

num.network.threads=3

num.io.threads=8

socket.send.buffer.bytes=102400

socket.receive.buffer.bytes=102400

socket.request.max.bytes=104857600

log.dirs=/tmp/kafka-logs

num.partitions=1

num.recovery.threads.per.data.dir=1

log.retention.hours=168

log.segment.bytes=1073741824

log.retention.check.interval.ms=300000

zookeeper.connect=node01:2181,node02:2181

zookeeper.connection.timeout.ms=6000

[root@node03 kafka]# ./bin/kafka-server-start.sh -daemon ./config/server.properties

[root@node03 kafka]# jps

4896 Kafka

3457 QuorumPeerMain

4913 Jps

2292 NodeManager

2182 DataNode

[root@node03 kafka]# netstat -antpu | grep :9092

tcp6 0 0 :::9092 :::\* LISTEN 4896/java

tcp6 0 0 192.168.4.3:9092 192.168.4.4:53480 ESTABLISHED 4896/java

#验证消息队列

[root@master kafka]# ./bin/kafka-topics.sh --create --zookeeper ${HOSTNAME}:2181 --replication-factor 1 --partitions 1 --topic nsd1705

Created topic "nsd1705".

[root@node03 kafka]# ./bin/kafka-topics.sh --list --zookeeper ${HOSTNAME}:2181

nsd1705

[root@node03 kafka]# ./bin/kafka-topics.sh --describe --zookeeper localhost:2181 nsd1705

Topic:nsd1705 PartitionCount:1 ReplicationFactor:1 Configs:

Topic: nsd1705 Partition: 0 Leader: 3 Replicas: 3 Isr: 3

#发布消息

[root@master kafka]# ./bin/kafka-console-producer.sh --broker-list localhost:9092 --topic nsd1705

abc

123

[root@node03 kafka]# ./bin/kafka-console-consumer.sh --bootstrap-server localhost:9092 --topic nsd1705 --from-beginning

abc

123

#--from-beginning参数表示从头收取信息，验证左右两边，能否即使通信

##namenode高可用

[root@master kafka]# free -m

total used free shared buff/cache available

Mem: 992 845 64 2 82 27

Swap: 1999 151 1848

[root@master kafka]# ./bin/kafka-server-stop.sh

[root@master kafka]# jps

4032 Jps

1591 ResourceManager

1419 SecondaryNameNode

3052 Kafka

1981 QuorumPeerMain

1214 NameNode

[root@master kafka]# free -m

total used free shared buff/cache available

Mem: 992 395 502 2 94 471

Swap: 1999 110 1889

[root@master kafka]# cd /usr/local/hadoop/

[root@master hadoop]# ./sbin/stop-all.sh

This script is Deprecated. Instead use stop-dfs.sh and stop-yarn.sh

Stopping namenodes on [master]

master: stopping namenode

node02: X11 forwarding request failed on channel 0

nfsgw: X11 forwarding request failed on channel 0

node01: X11 forwarding request failed on channel 0

node03: X11 forwarding request failed on channel 0

node02: stopping datanode

node01: stopping datanode

node03: stopping datanode

nfsgw: no datanode to stop

Stopping secondary namenodes [0.0.0.0]

0.0.0.0: stopping secondarynamenode

stopping yarn daemons

stopping resourcemanager

node01: X11 forwarding request failed on channel 0

node03: X11 forwarding request failed on channel 0

node02: X11 forwarding request failed on channel 0

nfsgw: X11 forwarding request failed on channel 0

node01: stopping nodemanager

node02: stopping nodemanager

nfsgw: stopping nodemanager

node03: stopping nodemanager

no proxyserver to stop

[root@master hadoop]# jps

4528 Jps

1981 QuorumPeerMain

[root@master hadoop]# free -m

total used free shared buff/cache available

Mem: 992 114 679 2 198 729

Swap: 1999 41 1958

#初始化设置，关闭kafka、hadoop，保留zookeeper，四台同步

#修改hosts文件，做免密登录

[root@master hadoop]# cat /etc/hosts

127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4

::1 localhost localhost.localdomain localhost6 localhost6.localdomain6

192.168.4.1 node01 node01.tedu.cn

192.168.4.2 node02 node02.tedu.cn

192.168.4.3 node03 node03.tedu.cn

192.168.4.4 master master.tedu.cn

192.168.4.5 nfsgw nfsgw.tedu.cn

192.168.4.6 slave slave.tedu.cn

[root@master hadoop]# for i in 192.168.4.{1..6}; do

> scp /etc/hosts $i:/etc

> done

hosts 100% 359 0.4KB/s 00:00

hosts 100% 359 0.4KB/s 00:00

hosts 100% 359 0.4KB/s 00:00

hosts 100% 359 0.4KB/s 00:00

hosts 100% 359 0.4KB/s 00:00

hosts 100% 359 0.4KB/s 00:00

[root@master hadoop]# ping slave

PING slave (192.168.4.6) 56(84) bytes of data.

64 bytes from slave (192.168.4.6): icmp\_seq=1 ttl=64 time=0.926 ms

64 bytes from slave (192.168.4.6): icmp\_seq=2 ttl=64 time=0.991 ms

#初始化slave

[root@slave ~]# mkdir /var/hadoop

[root@slave ~]# yum -y install java-1.8.0-openjdk-devel

[root@slave ~]# jps

2561 Jps

[root@master hadoop]# scp -r /usr/local/ 192.168.4.6:/usr/

[root@slave ~]# for i in 192.168.4.{1..5}; do ssh-copy-id root@$i; done

[root@master hadoop]# cat etc/hadoop/slaves

node01

node02

node03

[root@master hadoop]# rm -rf /var/hadoop/

[root@master hadoop]# mkdir /var/Hadoop

[root@master hadoop]# sed -n '1,2p;19,45p' etc/hadoop/core-site.xml

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>

<configuration>

<!--文件系统类型-->

<property>

<name>fs.defaultFS</name>

<value>hdfs://mycluster</value>

</property>

<!--数据存放路径-->

<property>

<name>hadoop.tmp.dir</name>

<value>/var/hadoop</value>

</property>

<!--设置nfs用户组-->

<property>

<name>hadoop.proxyuser.nfsuser.groups</name>

<value>\*</value>

</property>

<!--设置zookeeper地址-->

<property>

<name>ha.zookeeper.quorum</name>

<value>node01:2181,node02:2181,node03:2181</value>

</property>

<!--设置允许挂载主机-->

<property>

<name>hadoop.proxyuser.nfsuser.hosts</name>

<value>\*</value>

</property>

</configuration>

[root@master hadoop]# { echo 'stat'; yes; } | telnet node01 2181

Trying 192.168.4.1...

Connected to node01.

Escape character is '^]'.

Zookeeper version: 3.4.10-39d3a4f269333c922ed3db283be479f9deacaa0f, built on 03/23/2017 10:13 GMT

Clients:

/192.168.4.4:38194[0](queued=0,recved=1,sent=0)

Latency min/avg/max: 0/0/0

Received: 1

Sent: 0

Connections: 1

Outstanding: 0

Zxid: 0x400000160

Mode: follower

Node count: 127

Connection closed by foreign host.

[root@master hadoop]# { echo 'stat'; yes; } | telnet node02 2181

Trying 192.168.4.2...

Connected to node02.

Escape character is '^]'.

Zookeeper version: 3.4.10-39d3a4f269333c922ed3db283be479f9deacaa0f, built on 03/23/2017 10:13 GMT

Clients:

/192.168.4.4:35988[0](queued=0,recved=1,sent=0)

Latency min/avg/max: 0/0/0

Received: 1

Sent: 0

Connections: 1

Outstanding: 0

Zxid: 0x500000000

Mode: leader

Node count: 127

Connection closed by foreign host.

[root@master hadoop]# { echo 'stat'; yes; } | telnet node03 2181

Trying 192.168.4.3...

Connected to node03.

Escape character is '^]'.

Zookeeper version: 3.4.10-39d3a4f269333c922ed3db283be479f9deacaa0f, built on 03/23/2017 10:13 GMT

Clients:

/192.168.4.4:47792[0](queued=0,recved=1,sent=0)

Latency min/avg/max: 0/0/0

Received: 1

Sent: 0

Connections: 1

Outstanding: 0

Zxid: 0x400000160

Mode: follower

Node count: 127

Connection closed by foreign host.

[root@node01 hadoop]# sed -n '1,2p;19,60p' etc/hadoop/hdfs-site.xml

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>

<configuration>

<!--定义集群-->

<property>

<name>dfs.nameservices</name>

<value>mycluster</value>

</property>

<!--定义namenode-->

<property>

<name>dfs.ha.namenodes.mycluster</name>

<value>nn1,nn2</value>

</property>

<!--定义master-->

<property>

<name>dfs.namenode.rpc-address.mycluster.nn1</name>

<value>master:8020</value>

</property>

<!--定义slave-->

<property>

<name>dfs.namenode.rpc-address.mycluster.nn2</name>

<value>slave:8020</value>

</property>

<!--定义master-http地址-->

<property>

<name>dfs.namenode.http-address.mycluster.nn1</name>

<value>master:50070</value>

</property>

<!--定义slave-http地址-->

<property>

<name>dfs.namenode.http-address.mycluster.nn2</name>

<value>slave:50070</value>

</property>

<!--定义日志存储路径-->

<property>

<name>dfs.namenode.shared.edits.dir</name>

<value>qjournal://node01:8485;node02:8485;node03:8485/mycluster</value>

</property>

<!--指定元数据存放路径-->

<property>

<name>dfs.journalnode.edits.dir</name>

<value>/var/hadoop/journal</value>

</property>

<!--datanode链接namenode的java类-->

<property>

<name>dfs.client.failover.proxy.provider.mycluster</name>

<value>org.apache.hadoop.hdfs.server.namenode.ha.ConfiguredFailoverProxyProvider</value>

</property>

<!--设置隔离机制-->

<property>

<name>dfs.ha.fencing.methods</name>

<value>sshfence</value>

</property>

<!--指定秘钥位置-->

<property>

<name>dfs.ha.fencing.ssh.private-key-files</name>

<value>/root/.ssh/id\_rsa</value>

</property>

<!--开启故障自动转移-->

<property>

<name>dfs.ha.automatic-failover.enabled</name>

<value>true</value>

</property>

<!--数据备份数量-->

<property>

<name>dfs.replication</name>

<value>2</value>

</property>

<!--设置nfs主机权限-->

<property>

<name>nfs.exports.allowed.hosts</name>

<value>\* rw</value>

</property>

<!--访问更新时间-->

<property>

<name>dfs.namenode.accesstime.precsion</name>

<value>3600000</value>

</property>

<!--设置转储目录-->

<property>

<name>nfs.dump.dir</name>

<value>/var/hdfs-nfs</value>

</property>

<!--设置读buffer大小-->

<property>

<name>nfs.rtmax</name>

<value>4194034</value>

</property>

<!--设置写buffer大小-->

<property>

<name>nfs.wtmax</name>

<value>1048576</value>

</property>

<!--设置没有权限的客户端挂载nfs-->

<property>

<name>nfs.port.monitoring.disabled</name>

<value>true</value>

</property>

<!--删除节点配置-->

<property>

<name>dfs.hosts.exclude</name>

<value>/usr/local/hadoop/etc/hadoop/exclude</value>

</property>

</configuration>

#删除namenode和secondynamenode

[root@master hadoop]# scp -r /usr/local/hadoop/ 192.168.4.{1,2,3,6}:/usr/local/

#同步文件

[root@master hadoop]# ./bin/hdfs zkfc -formatZK

18/02/05 16:21:13 INFO tools.DFSZKFailoverController: Failover controller configured for NameNode NameNode at master/192.168.4.4:8020

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:zookeeper.version=3.4.6-1569965, built on 02/20/2014 09:09 GMT

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:host.name=master

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:java.version=1.8.0\_102

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:java.vendor=Oracle Corporation

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:java.home=/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.102-4.b14.el7.x86\_64/jre

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:java.class.path=/usr/local/hadoop/etc/hadoop:/usr/local/hadoop/share/hadoop/common/lib/jaxb-impl-2.2.3-1.jar:/usr/local/hadoop/share/hadoop/common/lib/jaxb-api-2.2.2.jar:/usr/local/hadoop/share/hadoop/common/lib/stax-api-1.0-2.jar:/usr/local/hadoop/share/hadoop/common/lib/activation-1.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-jaxrs-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-xc-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/common/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/common/lib/jets3t-0.9.0.jar:/usr/local/hadoop/share/hadoop/common/lib/httpclient-4.2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/httpcore-4.2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/java-xmlbuilder-0.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-configuration-1.6.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-digester-1.8.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-beanutils-1.7.0.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-beanutils-core-1.8.0.jar:/usr/local/hadoop/share/hadoop/common/lib/slf4j-api-1.7.10.jar:/usr/local/hadoop/share/hadoop/common/lib/slf4j-log4j12-1.7.10.jar:/usr/local/hadoop/share/hadoop/common/lib/avro-1.7.4.jar:/usr/local/hadoop/share/hadoop/common/lib/paranamer-2.3.jar:/usr/local/hadoop/share/hadoop/common/lib/snappy-java-1.0.4.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/common/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/common/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/common/lib/gson-2.2.4.jar:/usr/local/hadoop/share/hadoop/common/lib/hadoop-auth-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/lib/apacheds-kerberos-codec-2.0.0-M15.jar:/usr/local/hadoop/share/hadoop/common/lib/apacheds-i18n-2.0.0-M15.jar:/usr/local/hadoop/share/hadoop/common/lib/api-asn1-api-1.0.0-M20.jar:/usr/local/hadoop/share/hadoop/common/lib/api-util-1.0.0-M20.jar:/usr/local/hadoop/share/hadoop/common/lib/zookeeper-3.4.6.jar:/usr/local/hadoop/share/hadoop/common/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-framework-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-client-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jsch-0.1.42.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-recipes-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/htrace-core-3.1.0-incubating.jar:/usr/local/hadoop/share/hadoop/common/lib/junit-4.11.jar:/usr/local/hadoop/share/hadoop/common/lib/hamcrest-core-1.3.jar:/usr/local/hadoop/share/hadoop/common/lib/mockito-all-1.8.5.jar:/usr/local/hadoop/share/hadoop/common/lib/hadoop-annotations-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/common/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-math3-3.1.1.jar:/usr/local/hadoop/share/hadoop/common/lib/xmlenc-0.52.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-httpclient-3.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-net-3.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-collections-3.2.2.jar:/usr/local/hadoop/share/hadoop/common/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/common/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/common/lib/jsp-api-2.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-json-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/jettison-1.1.jar:/usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3-tests.jar:/usr/local/hadoop/share/hadoop/common/hadoop-nfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/hdfs:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xmlenc-0.52.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/htrace-core-3.1.0-incubating.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-daemon-1.0.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/netty-all-4.0.23.Final.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xercesImpl-2.9.1.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xml-apis-1.3.04.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-2.7.3-tests.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-nfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/lib/zookeeper-3.4.6-tests.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/yarn/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jaxb-api-2.2.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/stax-api-1.0-2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/activation-1.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-client-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-jaxrs-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-xc-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guice-servlet-3.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guice-3.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/javax.inject-1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/aopalliance-1.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-json-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jettison-1.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jaxb-impl-2.2.3-1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-guice-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/zookeeper-3.4.6.jar:/usr/local/hadoop/share/hadoop/yarn/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/yarn/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-collections-3.2.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-api-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-nodemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-web-proxy-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-applicationhistoryservice-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-resourcemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-tests-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-client-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-sharedcachemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-applications-distributedshell-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-applications-unmanaged-am-launcher-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-registry-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/avro-1.7.4.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/paranamer-2.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/snappy-java-1.0.4.1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/hadoop-annotations-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/guice-3.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/javax.inject-1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/aopalliance-1.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-guice-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/guice-servlet-3.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/junit-4.11.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/hamcrest-core-1.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-core-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-shuffle-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-app-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-hs-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-jobclient-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-hs-plugins-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-jobclient-2.7.3-tests.jar:/contrib/capacity-scheduler/\*.jar

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:java.library.path=/usr/local/hadoop/lib/native

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:java.io.tmpdir=/tmp

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:java.compiler=<NA>

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:os.name=Linux

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:os.arch=amd64

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:os.version=3.10.0-514.el7.x86\_64

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:user.name=root

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:user.home=/root

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Client environment:user.dir=/usr/local/hadoop

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Initiating client connection, connectString=node01:2181,node02:2181,node03:2181 sessionTimeout=5000 watcher=org.apache.hadoop.ha.ActiveStandbyElector$WatcherWithClientRef@1623b78d

18/02/05 16:21:14 INFO zookeeper.ClientCnxn: Opening socket connection to server node03/192.168.4.3:2181. Will not attempt to authenticate using SASL (unknown error)

18/02/05 16:21:14 INFO zookeeper.ClientCnxn: Socket connection established to node03/192.168.4.3:2181, initiating session

18/02/05 16:21:14 INFO zookeeper.ClientCnxn: Session establishment complete on server node03/192.168.4.3:2181, sessionid = 0x36163df16ab0000, negotiated timeout = 5000

18/02/05 16:21:14 INFO ha.ActiveStandbyElector: Successfully created /hadoop-ha/mycluster in ZK.

18/02/05 16:21:14 INFO zookeeper.ZooKeeper: Session: 0x36163df16ab0000 closed

18/02/05 16:21:14 WARN ha.ActiveStandbyElector: Ignoring stale result from old client with sessionId 0x36163df16ab0000

18/02/05 16:21:14 INFO zookeeper.ClientCnxn: EventThread shut down

#看到上边标红的successful，格式化zk集群

[root@node01 hadoop]# /usr/local/hadoop/sbin/hadoop-daemon.sh start journalnode

starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node01.tedu.cn.out

[root@node01 hadoop]# jps

6627 JournalNode

6676 Jps

1255 QuorumPeerMain

[root@node01 hadoop]# exit

登出

Connection to 192.168.4.1 closed.

[root@localhost ~]# ssh 192.168.4.2

root@192.168.4.2's password:

X11 forwarding request failed on channel 0

Last login: Mon Feb 5 15:47:40 2018 from node01

[root@node02 ~]# /usr/local/hadoop/sbin/hadoop-daemon.sh start journalnode

starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node02.tedu.cn.out

[root@node02 ~]# jps

1289 QuorumPeerMain

7850 JournalNode

7899 Jps

[root@node02 ~]# exit

登出

Connection to 192.168.4.2 closed.

[root@localhost ~]# ssh 192.168.4.3

root@192.168.4.3's password:

X11 forwarding request failed on channel 0

Last login: Mon Feb 5 10:50:28 2018 from 192.168.4.254

[root@node03 ~]# /usr/local/hadoop/sbin/hadoop-daemon.sh start journalnode

starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node03.tedu.cn.out

[root@node03 ~]# jps

1173 QuorumPeerMain

5645 JournalNode

5694 Jps

#启动日志服务

[root@master hadoop]# ./bin/hdfs namenode -format

18/02/05 16:29:36 INFO namenode.NameNode: STARTUP\_MSG:

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

STARTUP\_MSG: Starting NameNode

STARTUP\_MSG: host = master/192.168.4.4

STARTUP\_MSG: args = [-format]

STARTUP\_MSG: version = 2.7.3

STARTUP\_MSG: classpath = /usr/local/hadoop/etc/hadoop:/usr/local/hadoop/share/hadoop/common/lib/jaxb-impl-2.2.3-1.jar:/usr/local/hadoop/share/hadoop/common/lib/jaxb-api-2.2.2.jar:/usr/local/hadoop/share/hadoop/common/lib/stax-api-1.0-2.jar:/usr/local/hadoop/share/hadoop/common/lib/activation-1.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-jaxrs-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-xc-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/common/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/common/lib/jets3t-0.9.0.jar:/usr/local/hadoop/share/hadoop/common/lib/httpclient-4.2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/httpcore-4.2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/java-xmlbuilder-0.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-configuration-1.6.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-digester-1.8.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-beanutils-1.7.0.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-beanutils-core-1.8.0.jar:/usr/local/hadoop/share/hadoop/common/lib/slf4j-api-1.7.10.jar:/usr/local/hadoop/share/hadoop/common/lib/slf4j-log4j12-1.7.10.jar:/usr/local/hadoop/share/hadoop/common/lib/avro-1.7.4.jar:/usr/local/hadoop/share/hadoop/common/lib/paranamer-2.3.jar:/usr/local/hadoop/share/hadoop/common/lib/snappy-java-1.0.4.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/common/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/common/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/common/lib/gson-2.2.4.jar:/usr/local/hadoop/share/hadoop/common/lib/hadoop-auth-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/lib/apacheds-kerberos-codec-2.0.0-M15.jar:/usr/local/hadoop/share/hadoop/common/lib/apacheds-i18n-2.0.0-M15.jar:/usr/local/hadoop/share/hadoop/common/lib/api-asn1-api-1.0.0-M20.jar:/usr/local/hadoop/share/hadoop/common/lib/api-util-1.0.0-M20.jar:/usr/local/hadoop/share/hadoop/common/lib/zookeeper-3.4.6.jar:/usr/local/hadoop/share/hadoop/common/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-framework-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-client-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jsch-0.1.42.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-recipes-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/htrace-core-3.1.0-incubating.jar:/usr/local/hadoop/share/hadoop/common/lib/junit-4.11.jar:/usr/local/hadoop/share/hadoop/common/lib/hamcrest-core-1.3.jar:/usr/local/hadoop/share/hadoop/common/lib/mockito-all-1.8.5.jar:/usr/local/hadoop/share/hadoop/common/lib/hadoop-annotations-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/common/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-math3-3.1.1.jar:/usr/local/hadoop/share/hadoop/common/lib/xmlenc-0.52.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-httpclient-3.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-net-3.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-collections-3.2.2.jar:/usr/local/hadoop/share/hadoop/common/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/common/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/common/lib/jsp-api-2.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-json-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/jettison-1.1.jar:/usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3-tests.jar:/usr/local/hadoop/share/hadoop/common/hadoop-nfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/hdfs:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xmlenc-0.52.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/htrace-core-3.1.0-incubating.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-daemon-1.0.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/netty-all-4.0.23.Final.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xercesImpl-2.9.1.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xml-apis-1.3.04.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-2.7.3-tests.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-nfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/lib/zookeeper-3.4.6-tests.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/yarn/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jaxb-api-2.2.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/stax-api-1.0-2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/activation-1.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-client-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-jaxrs-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-xc-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guice-servlet-3.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guice-3.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/javax.inject-1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/aopalliance-1.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-json-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jettison-1.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jaxb-impl-2.2.3-1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-guice-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/zookeeper-3.4.6.jar:/usr/local/hadoop/share/hadoop/yarn/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/yarn/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-collections-3.2.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-api-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-nodemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-web-proxy-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-applicationhistoryservice-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-resourcemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-tests-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-client-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-sharedcachemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-applications-distributedshell-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-applications-unmanaged-am-launcher-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-registry-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/avro-1.7.4.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/paranamer-2.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/snappy-java-1.0.4.1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/hadoop-annotations-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/guice-3.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/javax.inject-1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/aopalliance-1.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-guice-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/guice-servlet-3.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/junit-4.11.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/hamcrest-core-1.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-core-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-shuffle-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-app-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-hs-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-jobclient-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-hs-plugins-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-jobclient-2.7.3-tests.jar:/contrib/capacity-scheduler/\*.jar

STARTUP\_MSG: build = https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff; compiled by 'root' on 2016-08-18T01:41Z

STARTUP\_MSG: java = 1.8.0\_102

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18/02/05 16:29:37 INFO namenode.NameNode: registered UNIX signal handlers for [TERM, HUP, INT]

18/02/05 16:29:37 INFO namenode.NameNode: createNameNode [-format]

Formatting using clusterid: CID-5bdf69b8-98bc-4d59-91a1-27ef34f6edf9

18/02/05 16:29:38 INFO namenode.FSNamesystem: No KeyProvider found.

18/02/05 16:29:38 INFO namenode.FSNamesystem: fsLock is fair:true

18/02/05 16:29:38 INFO util.HostsFileReader: Adding nfsgw to the list of excluded hosts from /usr/local/hadoop/etc/hadoop/exclude

18/02/05 16:29:38 INFO blockmanagement.DatanodeManager: dfs.block.invalidate.limit=1000

18/02/05 16:29:38 INFO blockmanagement.DatanodeManager: dfs.namenode.datanode.registration.ip-hostname-check=true

18/02/05 16:29:38 INFO blockmanagement.BlockManager: dfs.namenode.startup.delay.block.deletion.sec is set to 000:00:00:00.000

18/02/05 16:29:38 INFO blockmanagement.BlockManager: The block deletion will start around 2018 二月 05 16:29:38

18/02/05 16:29:38 INFO util.GSet: Computing capacity for map BlocksMap

18/02/05 16:29:38 INFO util.GSet: VM type = 64-bit

18/02/05 16:29:38 INFO util.GSet: 2.0% max memory 966.7 MB = 19.3 MB

18/02/05 16:29:38 INFO util.GSet: capacity = 2^21 = 2097152 entries

18/02/05 16:29:38 INFO blockmanagement.BlockManager: dfs.block.access.token.enable=false

18/02/05 16:29:38 INFO blockmanagement.BlockManager: defaultReplication = 2

18/02/05 16:29:38 INFO blockmanagement.BlockManager: maxReplication = 512

18/02/05 16:29:38 INFO blockmanagement.BlockManager: minReplication = 1

18/02/05 16:29:38 INFO blockmanagement.BlockManager: maxReplicationStreams = 2

18/02/05 16:29:38 INFO blockmanagement.BlockManager: replicationRecheckInterval = 3000

18/02/05 16:29:38 INFO blockmanagement.BlockManager: encryptDataTransfer = false

18/02/05 16:29:38 INFO blockmanagement.BlockManager: maxNumBlocksToLog = 1000

18/02/05 16:29:38 INFO namenode.FSNamesystem: fsOwner = root (auth:SIMPLE)

18/02/05 16:29:38 INFO namenode.FSNamesystem: supergroup = supergroup

18/02/05 16:29:38 INFO namenode.FSNamesystem: isPermissionEnabled = true

18/02/05 16:29:38 INFO namenode.FSNamesystem: Determined nameservice ID: mycluster

18/02/05 16:29:38 INFO namenode.FSNamesystem: HA Enabled: true

18/02/05 16:29:38 INFO namenode.FSNamesystem: Append Enabled: true

18/02/05 16:29:38 INFO util.GSet: Computing capacity for map INodeMap

18/02/05 16:29:38 INFO util.GSet: VM type = 64-bit

18/02/05 16:29:38 INFO util.GSet: 1.0% max memory 966.7 MB = 9.7 MB

18/02/05 16:29:38 INFO util.GSet: capacity = 2^20 = 1048576 entries

18/02/05 16:29:38 INFO namenode.FSDirectory: ACLs enabled? false

18/02/05 16:29:38 INFO namenode.FSDirectory: XAttrs enabled? true

18/02/05 16:29:38 INFO namenode.FSDirectory: Maximum size of an xattr: 16384

18/02/05 16:29:38 INFO namenode.NameNode: Caching file names occuring more than 10 times

18/02/05 16:29:38 INFO util.GSet: Computing capacity for map cachedBlocks

18/02/05 16:29:38 INFO util.GSet: VM type = 64-bit

18/02/05 16:29:38 INFO util.GSet: 0.25% max memory 966.7 MB = 2.4 MB

18/02/05 16:29:38 INFO util.GSet: capacity = 2^18 = 262144 entries

18/02/05 16:29:38 INFO namenode.FSNamesystem: dfs.namenode.safemode.threshold-pct = 0.9990000128746033

18/02/05 16:29:38 INFO namenode.FSNamesystem: dfs.namenode.safemode.min.datanodes = 0

18/02/05 16:29:38 INFO namenode.FSNamesystem: dfs.namenode.safemode.extension = 30000

18/02/05 16:29:38 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.window.num.buckets = 10

18/02/05 16:29:38 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.num.users = 10

18/02/05 16:29:38 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.windows.minutes = 1,5,25

18/02/05 16:29:38 INFO namenode.FSNamesystem: Retry cache on namenode is enabled

18/02/05 16:29:38 INFO namenode.FSNamesystem: Retry cache will use 0.03 of total heap and retry cache entry expiry time is 600000 millis

18/02/05 16:29:38 INFO util.GSet: Computing capacity for map NameNodeRetryCache

18/02/05 16:29:38 INFO util.GSet: VM type = 64-bit

18/02/05 16:29:38 INFO util.GSet: 0.029999999329447746% max memory 966.7 MB = 297.0 KB

18/02/05 16:29:38 INFO util.GSet: capacity = 2^15 = 32768 entries

18/02/05 16:29:40 INFO namenode.FSImage: Allocated new BlockPoolId: BP-1739885700-192.168.4.4-1517819380905

18/02/05 16:29:40 INFO common.Storage: Storage directory /var/hadoop/dfs/name has been successfully formatted.

18/02/05 16:29:41 INFO namenode.FSImageFormatProtobuf: Saving image file /var/hadoop/dfs/name/current/fsimage.ckpt\_0000000000000000000 using no compression

18/02/05 16:29:41 INFO namenode.FSImageFormatProtobuf: Image file /var/hadoop/dfs/name/current/fsimage.ckpt\_0000000000000000000 of size 351 bytes saved in 0 seconds.

18/02/05 16:29:41 INFO namenode.NNStorageRetentionManager: Going to retain 1 images with txid >= 0

18/02/05 16:29:41 INFO util.ExitUtil: Exiting with status 0

18/02/05 16:29:41 INFO namenode.NameNode: SHUTDOWN\_MSG:

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SHUTDOWN\_MSG: Shutting down NameNode at master/192.168.4.4

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#格式化namenode，看到返回信息中标红的successful

[root@master hadoop]# scp -r /var/hadoop/\* 192.168.4.6:/var/hadoop/

[root@master hadoop]# tree

.

`-- dfs

`-- name

`-- current

|-- fsimage\_0000000000000000000

|-- fsimage\_0000000000000000000.md5

|-- seen\_txid

`-- VERSION

3 directories, 4 files

[root@slave ~]# cd /var/hadoop/

[root@slave hadoop]# tree

.

`-- dfs

`-- name

`-- current

|-- fsimage\_0000000000000000000

|-- fsimage\_0000000000000000000.md5

|-- seen\_txid

`-- VERSION

3 directories, 4 files

#同步随机信息

[root@master hadoop]# ./bin/hdfs namenode -initializeSharedEdits

18/02/05 16:40:42 INFO namenode.NameNode: STARTUP\_MSG:

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

STARTUP\_MSG: Starting NameNode

STARTUP\_MSG: host = master/192.168.4.4

STARTUP\_MSG: args = [-initializeSharedEdits]

STARTUP\_MSG: version = 2.7.3

STARTUP\_MSG: classpath = /usr/local/hadoop/etc/hadoop:/usr/local/hadoop/share/hadoop/common/lib/jaxb-impl-2.2.3-1.jar:/usr/local/hadoop/share/hadoop/common/lib/jaxb-api-2.2.2.jar:/usr/local/hadoop/share/hadoop/common/lib/stax-api-1.0-2.jar:/usr/local/hadoop/share/hadoop/common/lib/activation-1.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-jaxrs-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jackson-xc-1.9.13.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/common/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/common/lib/jets3t-0.9.0.jar:/usr/local/hadoop/share/hadoop/common/lib/httpclient-4.2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/httpcore-4.2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/java-xmlbuilder-0.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-configuration-1.6.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-digester-1.8.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-beanutils-1.7.0.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-beanutils-core-1.8.0.jar:/usr/local/hadoop/share/hadoop/common/lib/slf4j-api-1.7.10.jar:/usr/local/hadoop/share/hadoop/common/lib/slf4j-log4j12-1.7.10.jar:/usr/local/hadoop/share/hadoop/common/lib/avro-1.7.4.jar:/usr/local/hadoop/share/hadoop/common/lib/paranamer-2.3.jar:/usr/local/hadoop/share/hadoop/common/lib/snappy-java-1.0.4.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/common/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/common/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/common/lib/gson-2.2.4.jar:/usr/local/hadoop/share/hadoop/common/lib/hadoop-auth-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/lib/apacheds-kerberos-codec-2.0.0-M15.jar:/usr/local/hadoop/share/hadoop/common/lib/apacheds-i18n-2.0.0-M15.jar:/usr/local/hadoop/share/hadoop/common/lib/api-asn1-api-1.0.0-M20.jar:/usr/local/hadoop/share/hadoop/common/lib/api-util-1.0.0-M20.jar:/usr/local/hadoop/share/hadoop/common/lib/zookeeper-3.4.6.jar:/usr/local/hadoop/share/hadoop/common/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-framework-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-client-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jsch-0.1.42.jar:/usr/local/hadoop/share/hadoop/common/lib/curator-recipes-2.7.1.jar:/usr/local/hadoop/share/hadoop/common/lib/htrace-core-3.1.0-incubating.jar:/usr/local/hadoop/share/hadoop/common/lib/junit-4.11.jar:/usr/local/hadoop/share/hadoop/common/lib/hamcrest-core-1.3.jar:/usr/local/hadoop/share/hadoop/common/lib/mockito-all-1.8.5.jar:/usr/local/hadoop/share/hadoop/common/lib/hadoop-annotations-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/common/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-math3-3.1.1.jar:/usr/local/hadoop/share/hadoop/common/lib/xmlenc-0.52.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-httpclient-3.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-net-3.1.jar:/usr/local/hadoop/share/hadoop/common/lib/commons-collections-3.2.2.jar:/usr/local/hadoop/share/hadoop/common/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/common/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/common/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/common/lib/jsp-api-2.1.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/jersey-json-1.9.jar:/usr/local/hadoop/share/hadoop/common/lib/jettison-1.1.jar:/usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/common/hadoop-common-2.7.3-tests.jar:/usr/local/hadoop/share/hadoop/common/hadoop-nfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/hdfs:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xmlenc-0.52.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/htrace-core-3.1.0-incubating.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/commons-daemon-1.0.13.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/netty-all-4.0.23.Final.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xercesImpl-2.9.1.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/xml-apis-1.3.04.jar:/usr/local/hadoop/share/hadoop/hdfs/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-2.7.3-tests.jar:/usr/local/hadoop/share/hadoop/hdfs/hadoop-hdfs-nfs-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/lib/zookeeper-3.4.6-tests.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-lang-2.6.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guava-11.0.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jsr305-3.0.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-logging-1.1.3.jar:/usr/local/hadoop/share/hadoop/yarn/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-cli-1.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jaxb-api-2.2.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/stax-api-1.0-2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/activation-1.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/servlet-api-2.5.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-codec-1.4.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jetty-util-6.1.26.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-client-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-jaxrs-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jackson-xc-1.9.13.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guice-servlet-3.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/guice-3.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/javax.inject-1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/aopalliance-1.0.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-json-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jettison-1.1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jaxb-impl-2.2.3-1.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jersey-guice-1.9.jar:/usr/local/hadoop/share/hadoop/yarn/lib/zookeeper-3.4.6.jar:/usr/local/hadoop/share/hadoop/yarn/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/yarn/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/yarn/lib/commons-collections-3.2.2.jar:/usr/local/hadoop/share/hadoop/yarn/lib/jetty-6.1.26.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-api-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-nodemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-web-proxy-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-applicationhistoryservice-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-resourcemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-tests-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-client-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-server-sharedcachemanager-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-applications-distributedshell-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-applications-unmanaged-am-launcher-2.7.3.jar:/usr/local/hadoop/share/hadoop/yarn/hadoop-yarn-registry-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/protobuf-java-2.5.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/avro-1.7.4.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jackson-core-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jackson-mapper-asl-1.9.13.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/paranamer-2.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/snappy-java-1.0.4.1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/commons-compress-1.4.1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/xz-1.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/hadoop-annotations-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/commons-io-2.4.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-core-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-server-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/asm-3.2.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/log4j-1.2.17.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/netty-3.6.2.Final.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/leveldbjni-all-1.8.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/guice-3.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/javax.inject-1.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/aopalliance-1.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/jersey-guice-1.9.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/guice-servlet-3.0.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/junit-4.11.jar:/usr/local/hadoop/share/hadoop/mapreduce/lib/hamcrest-core-1.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-core-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-common-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-shuffle-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-app-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-hs-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-jobclient-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-hs-plugins-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.7.3.jar:/usr/local/hadoop/share/hadoop/mapreduce/hadoop-mapreduce-client-jobclient-2.7.3-tests.jar:/contrib/capacity-scheduler/\*.jar

STARTUP\_MSG: build = https://git-wip-us.apache.org/repos/asf/hadoop.git -r baa91f7c6bc9cb92be5982de4719c1c8af91ccff; compiled by 'root' on 2016-08-18T01:41Z

STARTUP\_MSG: java = 1.8.0\_102

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18/02/05 16:40:42 INFO namenode.NameNode: registered UNIX signal handlers for [TERM, HUP, INT]

18/02/05 16:40:42 INFO namenode.NameNode: createNameNode [-initializeSharedEdits]

18/02/05 16:40:43 WARN namenode.FSNamesystem: Only one image storage directory (dfs.namenode.name.dir) configured. Beware of data loss due to lack of redundant storage directories!

18/02/05 16:40:43 WARN namenode.FSNamesystem: Only one namespace edits storage directory (dfs.namenode.edits.dir) configured. Beware of data loss due to lack of redundant storage directories!

18/02/05 16:40:43 INFO namenode.FSNamesystem: No KeyProvider found.

18/02/05 16:40:43 INFO namenode.FSNamesystem: fsLock is fair:true

18/02/05 16:40:43 INFO util.HostsFileReader: Adding nfsgw to the list of excluded hosts from /usr/local/hadoop/etc/hadoop/exclude

18/02/05 16:40:43 INFO blockmanagement.DatanodeManager: dfs.block.invalidate.limit=1000

18/02/05 16:40:43 INFO blockmanagement.DatanodeManager: dfs.namenode.datanode.registration.ip-hostname-check=true

18/02/05 16:40:43 INFO blockmanagement.BlockManager: dfs.namenode.startup.delay.block.deletion.sec is set to 000:00:00:00.000

18/02/05 16:40:43 INFO blockmanagement.BlockManager: The block deletion will start around 2018 二月 05 16:40:43

18/02/05 16:40:43 INFO util.GSet: Computing capacity for map BlocksMap

18/02/05 16:40:43 INFO util.GSet: VM type = 64-bit

18/02/05 16:40:43 INFO util.GSet: 2.0% max memory 966.7 MB = 19.3 MB

18/02/05 16:40:43 INFO util.GSet: capacity = 2^21 = 2097152 entries

18/02/05 16:40:43 INFO blockmanagement.BlockManager: dfs.block.access.token.enable=false

18/02/05 16:40:43 INFO blockmanagement.BlockManager: defaultReplication = 2

18/02/05 16:40:43 INFO blockmanagement.BlockManager: maxReplication = 512

18/02/05 16:40:43 INFO blockmanagement.BlockManager: minReplication = 1

18/02/05 16:40:43 INFO blockmanagement.BlockManager: maxReplicationStreams = 2

18/02/05 16:40:43 INFO blockmanagement.BlockManager: replicationRecheckInterval = 3000

18/02/05 16:40:43 INFO blockmanagement.BlockManager: encryptDataTransfer = false

18/02/05 16:40:43 INFO blockmanagement.BlockManager: maxNumBlocksToLog = 1000

18/02/05 16:40:43 INFO namenode.FSNamesystem: fsOwner = root (auth:SIMPLE)

18/02/05 16:40:43 INFO namenode.FSNamesystem: supergroup = supergroup

18/02/05 16:40:43 INFO namenode.FSNamesystem: isPermissionEnabled = true

18/02/05 16:40:43 INFO namenode.FSNamesystem: Determined nameservice ID: mycluster

18/02/05 16:40:43 INFO namenode.FSNamesystem: HA Enabled: true

18/02/05 16:40:43 INFO namenode.FSNamesystem: Append Enabled: true

18/02/05 16:40:44 INFO util.GSet: Computing capacity for map INodeMap

18/02/05 16:40:44 INFO util.GSet: VM type = 64-bit

18/02/05 16:40:44 INFO util.GSet: 1.0% max memory 966.7 MB = 9.7 MB

18/02/05 16:40:44 INFO util.GSet: capacity = 2^20 = 1048576 entries

18/02/05 16:40:44 INFO namenode.FSDirectory: ACLs enabled? false

18/02/05 16:40:44 INFO namenode.FSDirectory: XAttrs enabled? true

18/02/05 16:40:44 INFO namenode.FSDirectory: Maximum size of an xattr: 16384

18/02/05 16:40:44 INFO namenode.NameNode: Caching file names occuring more than 10 times

18/02/05 16:40:44 INFO util.GSet: Computing capacity for map cachedBlocks

18/02/05 16:40:44 INFO util.GSet: VM type = 64-bit

18/02/05 16:40:44 INFO util.GSet: 0.25% max memory 966.7 MB = 2.4 MB

18/02/05 16:40:44 INFO util.GSet: capacity = 2^18 = 262144 entries

18/02/05 16:40:44 INFO namenode.FSNamesystem: dfs.namenode.safemode.threshold-pct = 0.9990000128746033

18/02/05 16:40:44 INFO namenode.FSNamesystem: dfs.namenode.safemode.min.datanodes = 0

18/02/05 16:40:44 INFO namenode.FSNamesystem: dfs.namenode.safemode.extension = 30000

18/02/05 16:40:44 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.window.num.buckets = 10

18/02/05 16:40:44 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.num.users = 10

18/02/05 16:40:44 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.windows.minutes = 1,5,25

18/02/05 16:40:44 INFO namenode.FSNamesystem: Retry cache on namenode is enabled

18/02/05 16:40:44 INFO namenode.FSNamesystem: Retry cache will use 0.03 of total heap and retry cache entry expiry time is 600000 millis

18/02/05 16:40:44 INFO util.GSet: Computing capacity for map NameNodeRetryCache

18/02/05 16:40:44 INFO util.GSet: VM type = 64-bit

18/02/05 16:40:44 INFO util.GSet: 0.029999999329447746% max memory 966.7 MB = 297.0 KB

18/02/05 16:40:44 INFO util.GSet: capacity = 2^15 = 32768 entries

18/02/05 16:40:44 INFO common.Storage: Lock on /var/hadoop/dfs/name/in\_use.lock acquired by nodename 6811@master

18/02/05 16:40:44 INFO namenode.FSImage: No edit log streams selected.

18/02/05 16:40:44 INFO namenode.FSImage: Planning to load image: FSImageFile(file=/var/hadoop/dfs/name/current/fsimage\_0000000000000000000, cpktTxId=0000000000000000000)

18/02/05 16:40:44 INFO namenode.FSImageFormatPBINode: Loading 1 INodes.

18/02/05 16:40:44 INFO namenode.FSImageFormatProtobuf: Loaded FSImage in 0 seconds.

18/02/05 16:40:44 INFO namenode.FSImage: Loaded image for txid 0 from /var/hadoop/dfs/name/current/fsimage\_0000000000000000000

18/02/05 16:40:44 INFO namenode.FSNamesystem: Need to save fs image? false (staleImage=false, haEnabled=true, isRollingUpgrade=false)

18/02/05 16:40:44 INFO namenode.NameCache: initialized with 0 entries 0 lookups

18/02/05 16:40:44 INFO namenode.FSNamesystem: Finished loading FSImage in 369 msecs

Re-format filesystem in QJM to [192.168.4.1:8485, 192.168.4.2:8485, 192.168.4.3:8485] ? (Y or N) y

18/02/05 16:40:48 INFO namenode.FileJournalManager: Recovering unfinalized segments in /var/hadoop/dfs/name/current

18/02/05 16:40:48 INFO client.QuorumJournalManager: Starting recovery process for unclosed journal segments...

18/02/05 16:40:48 INFO client.QuorumJournalManager: Successfully started new epoch 1

18/02/05 16:40:48 INFO util.ExitUtil: Exiting with status 0

18/02/05 16:40:48 INFO namenode.NameNode: SHUTDOWN\_MSG:

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SHUTDOWN\_MSG: Shutting down NameNode at master/192.168.4.4

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#初始化共享目录，不出现error，上边的warn是因为没删除DataNode的/var/Hadoop/下边的东西，见到上边标红的successful即可，中途交互的时候写y，确认重新格式化

[root@node03 ~]# /usr/local/hadoop/sbin/hadoop-daemon.sh stop journalnode

stopping journalnode

[root@node03 ~]# jps

1173 QuorumPeerMain

5989 Jps

[root@node03 ~]# exit

登出

Connection to 192.168.4.3 closed.

[root@localhost ~]# ssh 192.168.4.2

root@192.168.4.2's password:

X11 forwarding request failed on channel 0

Last login: Mon Feb 5 16:26:34 2018 from 192.168.4.254

[root@node02 ~]# /usr/local/hadoop/sbin/hadoop-daemon.sh stop journalnode

stopping journalnode

[root@node02 ~]# jps

1289 QuorumPeerMain

8142 Jps

[root@node02 ~]# exit

登出

Connection to 192.168.4.2 closed.

[root@localhost ~]# ssh 192.168.4.1

root@192.168.4.1's password:

X11 forwarding request failed on channel 0

Last login: Mon Feb 5 15:01:54 2018 from 192.168.4.254

[root@node01 ~]# /usr/local/hadoop/sbin/hadoop-daemon.sh stop journalnode

stopping journalnode

[root@node01 ~]# jps

1255 QuorumPeerMain

7038 Jps

#关闭所有节点的日志服务

[root@master hadoop]# rm -rf logs/\*

[root@master hadoop]# ./sbin/start-dfs.sh

Starting namenodes on [master slave]

master: starting namenode, logging to /usr/local/hadoop/logs/hadoop-root-namenode-master.tedu.cn.out

slave: Warning: Permanently added 'slave' (ECDSA) to the list of known hosts.

slave: X11 forwarding request failed on channel 0

slave: starting namenode, logging to /usr/local/hadoop/logs/hadoop-root-namenode-slave.tedu.cn.out

node03: X11 forwarding request failed on channel 0

node01: X11 forwarding request failed on channel 0

node02: X11 forwarding request failed on channel 0

node01: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node01.tedu.cn.out

node03: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node03.tedu.cn.out

node02: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node02.tedu.cn.out

Starting journal nodes [node01 node02 node03]

node02: X11 forwarding request failed on channel 0

node02: starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node02.tedu.cn.out

node01: X11 forwarding request failed on channel 0

node03: X11 forwarding request failed on channel 0

node03: starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node03.tedu.cn.out

node01: starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node01.tedu.cn.out

Starting ZK Failover Controllers on NN hosts [master slave]

slave: X11 forwarding request failed on channel 0

master: starting zkfc, logging to /usr/local/hadoop/logs/hadoop-root-zkfc-master.tedu.cn.out

slave: starting zkfc, logging to /usr/local/hadoop/logs/hadoop-root-zkfc-slave.tedu.cn.out

[root@master hadoop]# jps

7376 DFSZKFailoverController

7443 Jps

1197 QuorumPeerMain

7071 NameNode

#启动hdfs

[root@slave ~]# jps

6996 Jps

6759 NameNode

6856 DFSZKFailoverController

[root@node03 ~]# rm -rf /var/hadoop/dfs/data/

[root@node03 ~]# rm -rf /usr/local/hadoop/logs/\*

[root@node03 ~]# jps

1173 QuorumPeerMain

6727 Jps

#排错，DataNode同步操作

[root@master hadoop]# ./sbin/start-dfs.sh

Starting namenodes on [master slave]

slave: X11 forwarding request failed on channel 0

master: starting namenode, logging to /usr/local/hadoop/logs/hadoop-root-namenode-master.tedu.cn.out

slave: starting namenode, logging to /usr/local/hadoop/logs/hadoop-root-namenode-slave.tedu.cn.out

node02: X11 forwarding request failed on channel 0

node01: X11 forwarding request failed on channel 0

node01: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node01.tedu.cn.out

node02: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node02.tedu.cn.out

node03: X11 forwarding request failed on channel 0

node03: starting datanode, logging to /usr/local/hadoop/logs/hadoop-root-datanode-node03.tedu.cn.out

Starting journal nodes [node01 node02 node03]

node01: X11 forwarding request failed on channel 0

node02: X11 forwarding request failed on channel 0

node01: starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node01.tedu.cn.out

node03: X11 forwarding request failed on channel 0

node03: starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node03.tedu.cn.out

node02: starting journalnode, logging to /usr/local/hadoop/logs/hadoop-root-journalnode-node02.tedu.cn.out

Starting ZK Failover Controllers on NN hosts [master slave]

master: starting zkfc, logging to /usr/local/hadoop/logs/hadoop-root-zkfc-master.tedu.cn.out

slave: X11 forwarding request failed on channel 0

slave: starting zkfc, logging to /usr/local/hadoop/logs/hadoop-root-zkfc-slave.tedu.cn.out

[root@master hadoop]# jps

9056 NameNode

9380 DFSZKFailoverController

9430 Jps

1197 QuorumPeerMain

#重新启动服务

[root@slave ~]# jps

7507 NameNode

7605 DFSZKFailoverController

7837 Jps

[root@node03 ~]# jps

6784 DataNode

6868 JournalNode

1173 QuorumPeerMain

6933 Jps

[root@node03 ~]# exit

登出

Connection to 192.168.4.3 closed.

[root@localhost ~]# ssh 192.168.4.2

root@192.168.4.2's password:

X11 forwarding request failed on channel 0

Last login: Mon Feb 5 16:59:24 2018 from 192.168.4.254

[root@node02 ~]# jps

8868 DataNode

8952 JournalNode

1289 QuorumPeerMain

9132 Jps

[root@node02 ~]# exit

登出

Connection to 192.168.4.2 closed.

[root@localhost ~]# ssh 192.168.4.1

root@192.168.4.1's password:

X11 forwarding request failed on channel 0

Last login: Mon Feb 5 16:46:47 2018 from 192.168.4.254

[root@node01 ~]# jps

1255 QuorumPeerMain

7817 DataNode

8121 Jps

7901 JournalNode

root@master hadoop]# ./bin/hdfs dfsadmin -report

Configured Capacity: 23561502720 (21.94 GB)

Present Capacity: 16840679424 (15.68 GB)

DFS Remaining: 16840654848 (15.68 GB)

DFS Used: 24576 (24 KB)

DFS Used%: 0.00%

Under replicated blocks: 0

Blocks with corrupt replicas: 0

Missing blocks: 0

Missing blocks (with replication factor 1): 0

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

Live datanodes (3):

Name: 192.168.4.2:50010 (node02)

Hostname: node02

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 8192 (8 KB)

Non DFS Used: 2048385024 (1.91 GB)

DFS Remaining: 5805441024 (5.41 GB)

DFS Used%: 0.00%

DFS Remaining%: 73.92%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Mon Feb 05 17:20:31 CST 2018

Name: 192.168.4.1:50010 (node01)

Hostname: node01

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 8192 (8 KB)

Non DFS Used: 2623504384 (2.44 GB)

DFS Remaining: 5230321664 (4.87 GB)

DFS Used%: 0.00%

DFS Remaining%: 66.60%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Mon Feb 05 17:20:31 CST 2018

Name: 192.168.4.3:50010 (node03)

Hostname: node03

Decommission Status : Normal

Configured Capacity: 7853834240 (7.31 GB)

DFS Used: 8192 (8 KB)

Non DFS Used: 2048933888 (1.91 GB)

DFS Remaining: 5804892160 (5.41 GB)

DFS Used%: 0.00%

DFS Remaining%: 73.91%

Configured Cache Capacity: 0 (0 B)

Cache Used: 0 (0 B)

Cache Remaining: 0 (0 B)

Cache Used%: 100.00%

Cache Remaining%: 0.00%

Xceivers: 1

Last contact: Mon Feb 05 17:20:31 CST 2018

#证实集群启动成功

[root@master hadoop]# ./bin/hdfs haadmin -getServiceState nn1

standby

[root@master hadoop]# ./bin/hdfs haadmin -getServiceState nn2

Active

#验证namemode状态

[root@master hadoop]# ./bin/hadoop fs -ls hdfs://mycluster/

[root@master hadoop]# ./bin/hadoop fs -mkdir hdfs://mycluster/abc

[root@master hadoop]# ./bin/hadoop fs -ls hdfs://mycluster/

Found 1 items

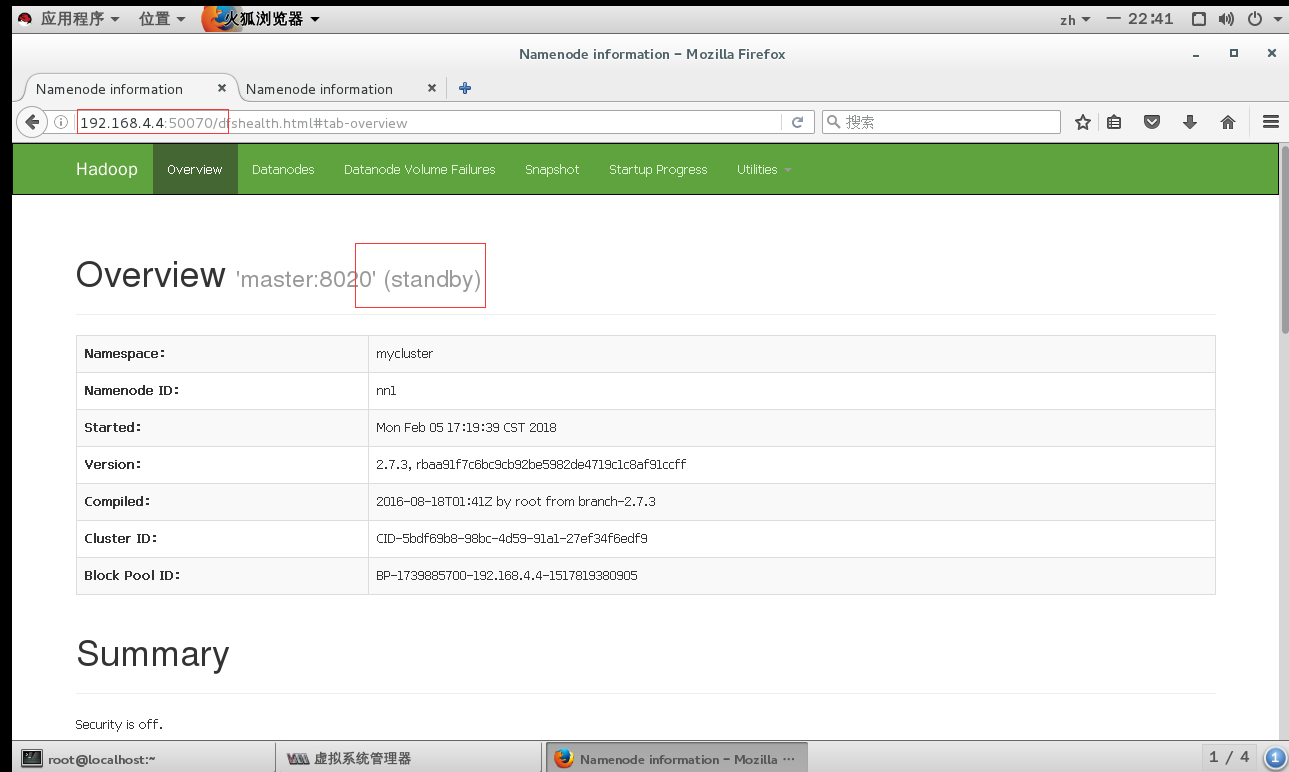
drwxr-xr-x - root supergroup 0 2018-02-05 17:25 hdfs://mycluster/abc

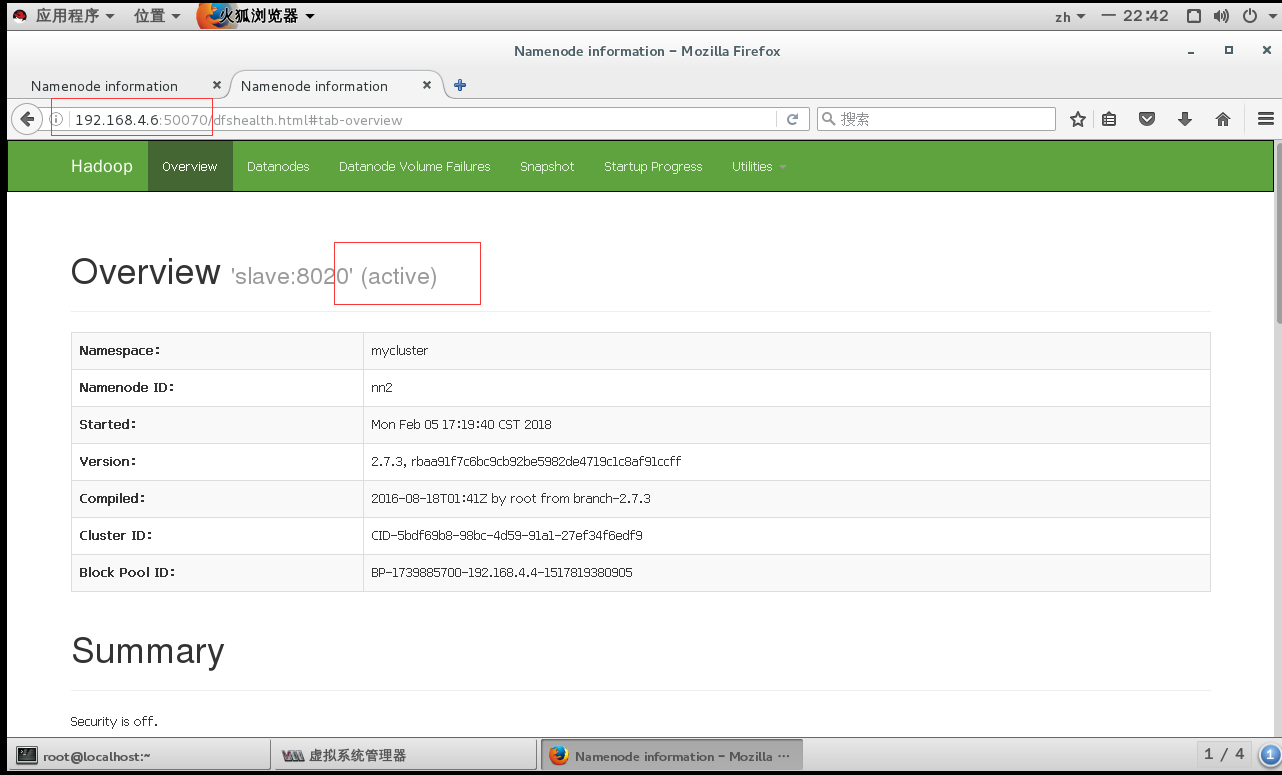
[root@master hadoop]# ./bin/hadoop fs -ls /

Found 1 items

drwxr-xr-x - root supergroup 0 2018-02-05 17:25 /abc

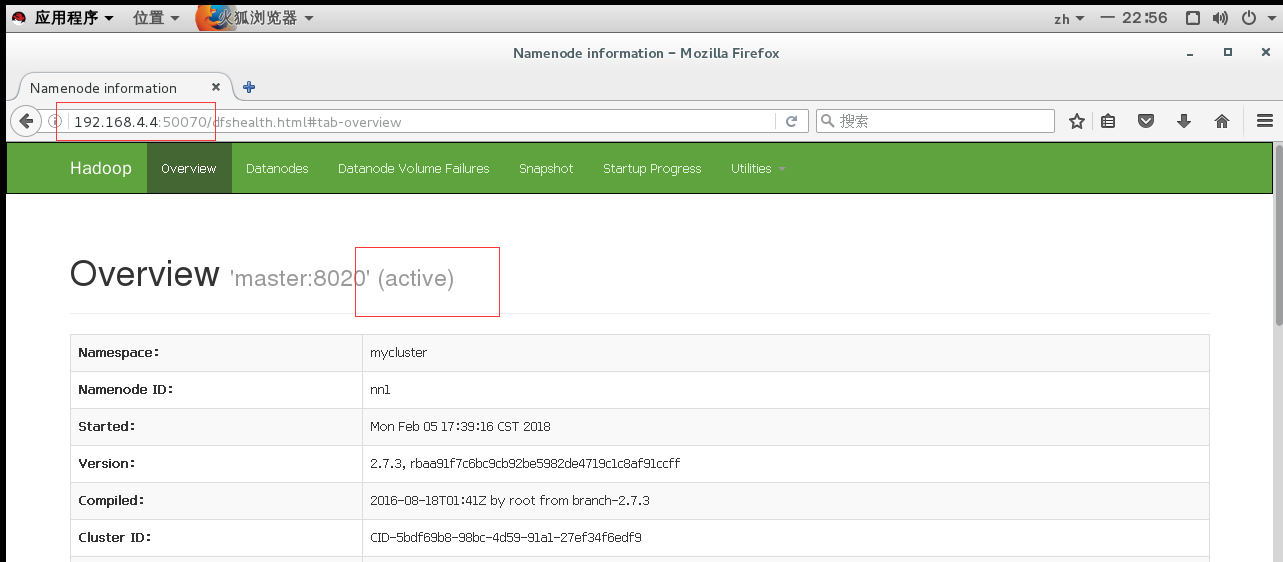
#访问集群1





#访问集群2

[root@slave ~]# reboot



集群成功

[root@master hadoop]# sed -n '1p;19,47p' etc/hadoop/yarn-site.xml

<?xml version="1.0"?>

</property>

<property>

<name>yarn.resourcemanager.ha.enabled</name>

<value>true</value>

</property>

<property>

<name>yarn.resourcemanager.ha.rm-ids</name>

<value>rm1,rm2</value>

</property>

<property>

<name>yarn.resourcemanager.hostname.rm1</name>

<value>master</value>

</property>

<property>

<name>yarn.resourcemanager.hostname.rm2</name>

<value>slave</value>

</property>

<property>

<name>yarn.resourcemanager.store.class</name>

<value>org.apache.hadoop.yarn.server.resourcemanager.recovery.ZKRMStateStore</value>

</property>

<property>

<name>yarn.resourcemanager.zk-address</name>

<value>node01:2181,node02:2181,node03:2181</value>

</property>

<property>

<name>yarn.resourcemanager.cluster-id</name>

<value>yarn-ha</value>

</property>

[root@master hadoop]# sed -n '1p;19,48p' etc/hadoop/yarn-site.xml

<?xml version="1.0"?>

</property>

<property>

<name>yarn.resourcemanager.ha.enabled</name>

<value>true</value>

</property>

<property>

<name>yarn.resourcemanager.ha.rm-ids</name>

<value>rm1,rm2</value>

</property>

<property>

<name>yarn.resourcemanager.hostname.rm1</name>

<value>master</value>

</property>

<property>

<name>yarn.resourcemanager.hostname.rm2</name>

<value>slave</value>

</property>

<property>

<name>yarn.resourcemanager.store.class</name>

<value>org.apache.hadoop.yarn.server.resourcemanager.recovery.ZKRMStateStore</value>

</property>

<property>

<name>yarn.resourcemanager.zk-address</name>

<value>node01:2181,node02:2181,node03:2181</value>

</property>

<property>

<name>yarn.resourcemanager.cluster-id</name>

<value>yarn-ha</value>

</property>

</configuration>

[root@master hadoop]# scp etc/hadoop/yarn-site.xml 192.168.4.1:/usr/local/hadoop/etc/hadoop/

yarn-site.xml 100% 1680 1.6KB/s 00:00

[root@master hadoop]# scp etc/hadoop/yarn-site.xml 192.168.4.2:/usr/local/hadoop/etc/hadoop/

yarn-site.xml 100% 1680 1.6KB/s 00:00

[root@master hadoop]# scp etc/hadoop/yarn-site.xml 192.168.4.3:/usr/local/hadoop/etc/hadoop/

yarn-site.xml 100% 1680 1.6KB/s 00:00

[root@master hadoop]# scp etc/hadoop/yarn-site.xml 192.168.4.6:/usr/local/hadoop/etc/hadoop/

yarn-site.xml 100% 1680 1.6KB/s 00:00

[root@master hadoop]# ./sbin/start-yarn.sh

starting yarn daemons

starting resourcemanager, logging to /usr/local/hadoop/logs/yarn-root-resourcemanager-master.tedu.cn.out

node03: X11 forwarding request failed on channel 0

node01: X11 forwarding request failed on channel 0

node02: X11 forwarding request failed on channel 0

node01: starting nodemanager, logging to /usr/local/hadoop/logs/yarn-root-nodemanager-node01.tedu.cn.out

node03: starting nodemanager, logging to /usr/local/hadoop/logs/yarn-root-nodemanager-node03.tedu.cn.out

node02: starting nodemanager, logging to /usr/local/hadoop/logs/yarn-root-nodemanager-node02.tedu.cn.out

[root@master hadoop]# jps

15010 DFSZKFailoverController

15828 Jps

14693 NameNode

15740 ResourceManager

[root@master hadoop]# ./bin/yarn node -list

Total Nodes:3

Node-Id Node-State Node-Http-Address Number-of-Running-Containers

node02:45307 RUNNING node02:8042 0

node01:35058 RUNNING node01:8042 0

node03:35483 RUNNING node03:8042 0

[root@master hadoop]# ./bin/yarn rmadmin -getServiceState rm1

active

[root@master hadoop]# ./bin/yarn rmadmin -getServiceState rm2

18/02/05 18:11:01 INFO ipc.Client: Retrying connect to server: slave/192.168.4.6:8033. Already tried 0 time(s); retry policy is RetryUpToMaximumCountWithFixedSleep(maxRetries=1, sleepTime=1000 MILLISECONDS)

Operation failed: Call From master.tedu.cn/192.168.4.4 to slave:8033 failed on connection exception: java.net.ConnectException: 拒绝连接; For more details see: <http://wiki.apache.org/hadoop/ConnectionRefused>

#排错

[root@slave hadoop]# ./sbin/yarn-daemon.sh start resourcemanager

starting resourcemanager, logging to /usr/local/hadoop/logs/yarn-root-resourcemanager-slave.tedu.cn.out

[root@slave hadoop]# jps

4711 ResourceManager

3704 NameNode

4746 Jps

3806 DFSZKFailoverController

#手动启动slave的resourcemanager

[root@master hadoop]# ./bin/yarn rmadmin -getServiceState rm2

standby

[root@master hadoop]# ./bin/yarn rmadmin -getServiceState rm1

Active

[root@slave hadoop]# curl -i http://192.168.4.6:8088

HTTP/1.1 307 TEMPORARY\_REDIRECT

Cache-Control: no-cache

Expires: Mon, 05 Feb 2018 15:32:25 GMT

Date: Mon, 05 Feb 2018 15:32:25 GMT

Pragma: no-cache

Expires: Mon, 05 Feb 2018 15:32:25 GMT

Date: Mon, 05 Feb 2018 15:32:25 GMT

Pragma: no-cache

Content-Type: text/plain; charset=UTF-8

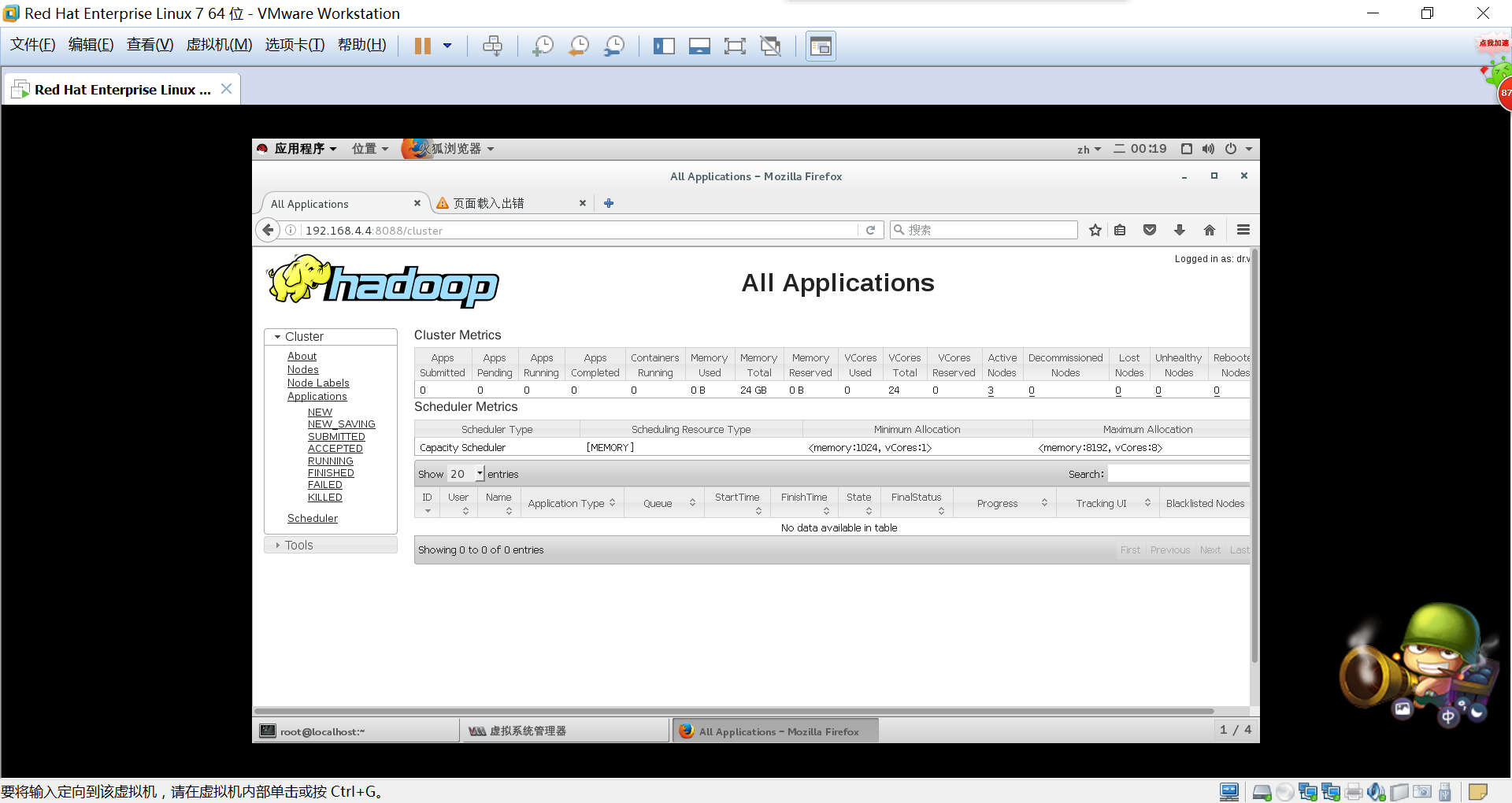
Location: http://master:8088/

Content-Length: 61

Server: Jetty(6.1.26)

This is standby RM. The redirect url is: <http://master:8088/>

#standby机器无法用网页访问，返回临时重定向到active



[root@master hadoop]# ./sbin/yarn-daemon.sh start resourcemanager

resourcemanager running as process 2168. Stop it first.

[root@master hadoop]# ./sbin/yarn-daemon.sh stop resourcemanager

stopping resourcemanager

[root@master hadoop]# ./bin/yarn rmadmin -getServiceState rm1

18/02/06 00:19:56 INFO ipc.Client: Retrying connect to server: master/192.168.4.4:8033. Already tried 0 time(s); retry policy is RetryUpToMaximumCountWithFixedSleep(maxRetries=1, sleepTime=1000 MILLISECONDS)

Operation failed: Call From master.tedu.cn/192.168.4.4 to master:8033 failed on connection exception: java.net.ConnectException: 拒绝连接; For more details see: http://wiki.apache.org/hadoop/ConnectionRefused

[root@master hadoop]# ./bin/yarn rmadmin -getServiceState rm2

Active

##验证成功