|  |
| --- |
| Manual Fail Over Using SNN Copy of Metadata |
|  |

|  |
| --- |
|  |



© Brain4ce Education Solutions Pvt. Ltd.

# Manual Fail Over Using SNN

Assuming we have two dns,

aj1 and aj2.

Our daemons run in following way:

aj1

NN

DN

TT

JT

aj2

SNN

DN

TT

We also know SNN uses parameters

fs.checkpoint.dir----------to store copy/merged copy of FSIMAGE

fs.checkpoint.edits.dir----to store copy of edits(default edits after changes were merged to FSIMAGE)

So assuming above, we would have as follows:

path of metadata in NN

/abc/name

edits

fsimage

fstime

VERSION

Path of snn where we have fsimage and edits

/abc/snnfsi

fsimage

...other files

/abc/snnedits

edits

...other files

Now shutdown or poweroff your NN machine (simulating failure of NN machine)

This would make your cluster inaccessible as NN is down.

Now, on aj2 where our SNN was running, we will attempt manual failover and bring up NN

1. Stop secondarynamenode

This is required as running snn will hold a lock on its path where it writes fsimage and edits

2. Update your core-site.xml to have aj2 as NN

3. Update hdfs-site.xml with now a path for metadata as follows

<property>

<name>dfs.name.dir</name>

<value>/abc/snnfsi</value>

<description>this path has snn'copy of fsimage</description>

</property>

4. bin/hadoop-daemon.sh start namenode on aj2

Oh no!!NN comes up but fails again

Check NN related log....and it says NN couldn’t come up as it couldn’t find edits in this path.

How do we resolve now

copy edits from

/abc/snnedits to /abc/snnfsi

Now start your NN, it will come up

Doing a FSCK might show blocks as corrupt and missing replicas.

This is due to the fact that earlier DN was talking to different NN

/bin/hadoop-daemon.sh stop datanode

/bin/hadoop-daemon.sh start datanode

Check filesystem with fsck, it should be fine

Thus, we did a manual failover

Ya ya!!! We need to start secondarynamenode..

If we are starting snn on same machine, give different path for it in hdfs-site.xml

or let snn store data in /tmp (anyways we have tested starting of NN and made

our cluster available)

If we are starting snn on diff machine, give parameters for snn accordingly